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the MODERN HOSPITAL

VOLUME 55 AUGUST 1940 NUMBER 2

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Just in Passing—

SEVERAL new features will mark the forthcoming convention of the American Hospital Association and related organizations in Boston the middle of next month. One entire afternoon will be devoted to hospital preparedness from the point of view of the U. S. Army, Navy and Public Health Service. Distinguished speakers from each of these three branches will discuss the problem with hospital administrators.

WOMEN'S auxiliaries are to come into their own, also, at the Boston meeting. One of the evening sessions will cover the subject of "Volunteer Service for Women in Hospitals." The following afternoon there will be three sectional meetings for women's auxiliary groups. Another evening session will be devoted to a trustee program arranged and presented by Raymond P. Sloan, editor of The MODERN HOSPITAL and trustee of Long Island College of Medicine.

NEXT month we will carry the full program of the various organizations, as well as special material on the hospitals of Boston and vicinity.

READ AND PASS ALONG

	See page	Date
Administrator		
Purch. Agent	.....	.....
Supt. of Nurses	.....	.....
Surg. Supervisor	.....	.....
Dietitian	.....	.....
Housekeeper	.....	.....
Pharmacist	.....	.....
Engineer	.....	.....
Laundry Manager	.....	.....
Radiologist	.....	.....
Pathologist	.....	.....
Chief of Staff	.....	.....
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Return to .....

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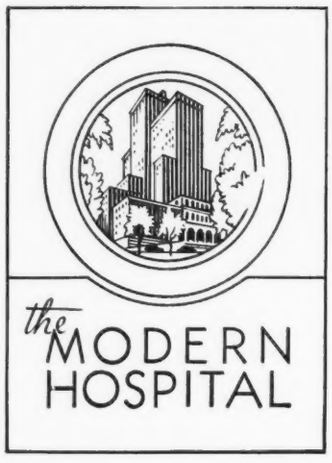

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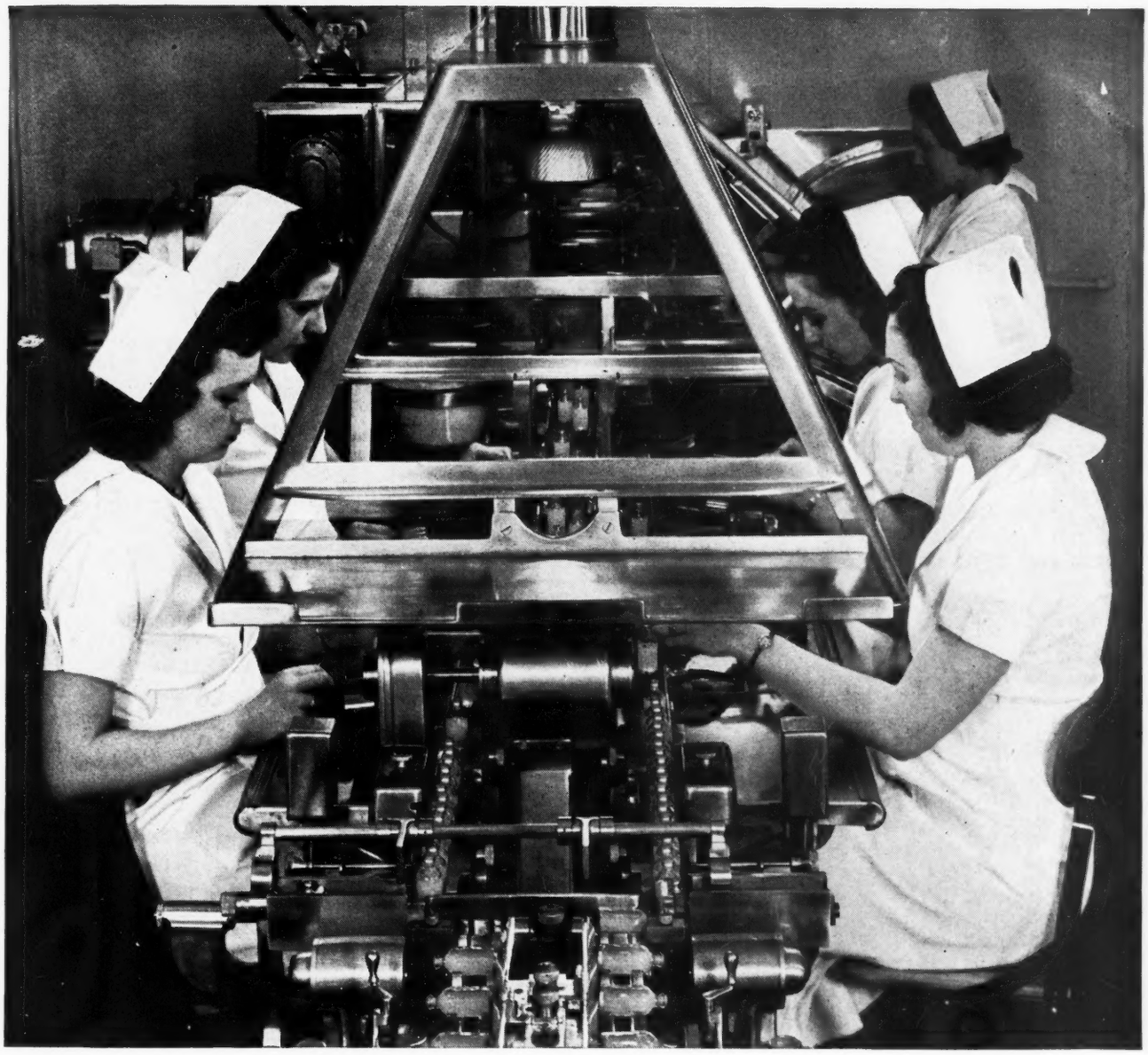
Published monthly and copyrighted, 1940, by The Modern Hospital Publishing Company, Inc., 919 N. Michigan, Chicago, and 101 Park Avenue, New York City. Otho F. Ball, president; Raymond P. Sloan, vice president; Stanley R. Clague, secretary; J. G. Jarrett, treasurer. North and South America, $3 a year; foreign, $4. Single copies: current, 35c; back, 50c to $1. Entered as second-class matter, Oct. 1, 1918, at the post office at Chicago, Ill., under the act of March 3, 1879. Printed in U. S. A.



A Modern Miracle

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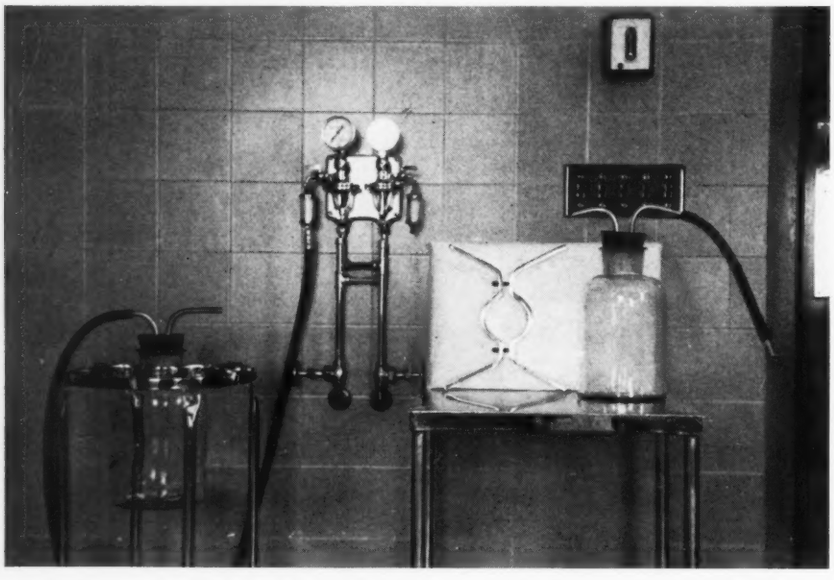
Simple Suction Device

• Ruth Totten, the operating room superintendent at Allegheny General Hospital, Pittsburgh, was telling us the other day about a simple apparatus for surgical suction she is using with considerable success. In fact, she gave us a picture of it that explains it better than words. The following brief description may help however.

The apparatus consists of a two gallon bottle that can be placed on the top or bottom ring of a basin rack by means of a metal collar.

The bottom of the bottle is 6½ inches in diameter and the neck is 2¾ inches in diameter and two inches high. The metal collar, which forms the brace for the bottle, is made of two pieces that are held together by thumb screws to facilitate changing the bottle when it is broken. The metal holder is three quarters of an inch wide and one fourth inch thick. It fits well around the neck of the bottle and the arms are angulated to about 120 degrees. The length of the arm depends on the basin rack to be used.

Notches are placed at the ends of the metal arms on the under surface, which fits over the ring of the basin rack to hold it securely. The size of the notches depends upon the thickness of the metal ring. The rubber stopper, which fits in the neck of the bottle, has two openings through which the metal tubing is inserted. The diameter of the opening of the metal tubing is a quarter of an inch, whereas the complete diameter of the tubing is three eighths of an inch. The metal tubing is bent at right angles and to this is connected heavy rubber tubing that passes to the suction machine; the sterile tubing that passes to the operative field is connected to the other side.



The surgical suction apparatus in use at Allegheny General Hospital.

"Eddie, Before"

• Everyone in and around the New Jersey Orthopedic Hospital, Orange, N. J., may be heard referring frequently and enthusiastically these days to "Eddie, Before." All of which is rather confusing to the uninitiated until he learns that "Eddie Before" is the title of the effective, full page picture which serves as a cover to the hospital's recent report. Eddie is the name of the appealing youngster with leg in splints who is being assisted into bed by a smiling nurse. On the rear cover the same Eddie appears, not the same either, for it is Eddie one year older, now fully recovered and riding his tricycle. Eddie has become a real person to the hospital's personnel and friends, symbolizing the many patients large and small whom the hospital serves through the year.

"Eddie, Before" tells the whole story in pictures, with just enough captions to make them intelligible. First, one whole page is devoted to the operating room in action—"Under the light that casts no shadow, skilled hands and scientific knowledge perform miracles that give new strength and hope." Next we learn of the work of the x-ray, social service, and physiotherapy departments; the plaster room; occupational therapy, and even the library cart —all dramatized by effective photographs.

Note, for example, how simply is told what goes on in the plaster room. The picture shows a youngster on a table with his leg up in the air while a doctor and assistant apply the bandage. "Eddie is telling two doctors just how to do it," we read. "Plaster bandages after being soaked in water are put on like ordinary bandages. The wet plaster oozing through the gauze is smoothed with the hand and forms a heavy cake about the limb. It hardens quickly into the stiff cast that limits motion." Printed matter is confined to three pages, one of which is devoted to suggestions for gifts; another, to the income statement and disbursements, and a third, to the names of the staff and personnel. The inside back cover carries the names of trustees.

No wonder "Eddie Before" has become a by-word. The young gentleman as introduced by Ruth Coon, the superintendent, is well worth meeting.

Information Please!

• When anyone wants information about a hospital, that is, the address, telephone number, visiting hours and so forth, he is generally in a hurry. And looking up such information in a telephone book takes time. That is why your Roving Reporter was interested to discover in the inside back cover of the telephone directories in St. Paul and Minneapolis a listing of the various hospitals with their telephone numbers and addresses in large type, as well as the visiting hours. Similarly displayed on the same page are nurses' registries, an announcement of the Minnesota Hospital Service Association and an ambulance service.

The idea has much to commend it!

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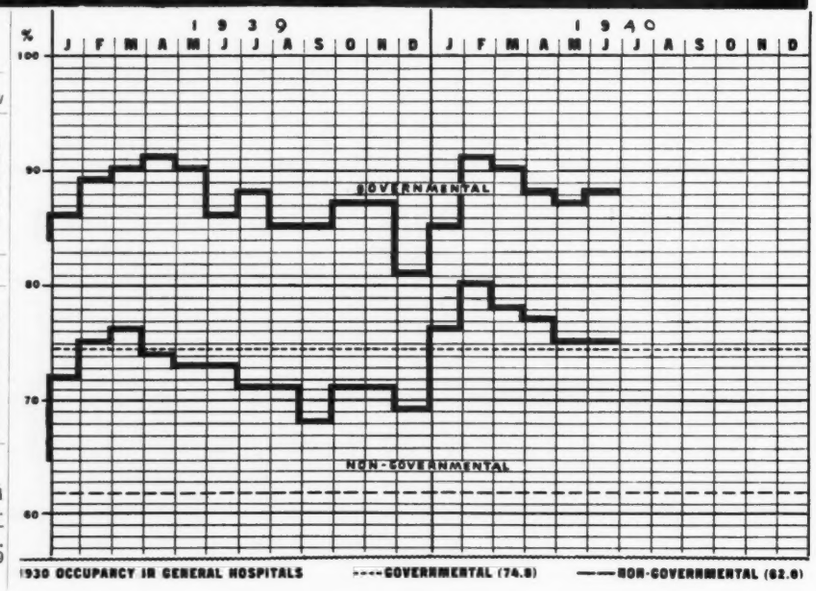
HOSPITAL OCCUPANCY BAROMETER

Type and Place	Census Data on Reporting Hospitals: Hosp.[1]	Beds[2]	1940: June	1940: May	1939: June	1939: May
Governmental:						
New York City	17	10,439	112*	112	102	106
New Jersey	4	2,625	84*	84*	85	89
N. and S. Carolina	18	2,380	75*	72	72	69
New Orleans	2	3,427	83	76	112	114
San Francisco	3	2,255	101*	101	90	92
St. Paul	1	1,180	69*	69	70	70
Chicago	2	3,500	94*	94	91	91
Total[4]	47	25,806	88*	87*	86	90
Nongovernmental:						
New York City[3]	68	15,194	79*	79*	76	80
New Jersey	61	8,131	68*	68*	70	73
N. & S. Carolina	109	7,315	68*	67	69	66
New Orleans	6	1,141	80*	77	75	68
San Francisco	16	3,178	75*	75	76	75
St. Paul	9	1,103	80*	80	72	72
Chicago	17	3,397	68*	68*	69	68
Cleveland	9	1,336	85*	85*	80	79
Total[4]	295	40,795	75*	75*	73	73

[1]Excluding hospitals for tuberculous and mental patients and institutional hospitals. Census data are for most recent month. [2]Excluding bassinets, usually. [3]General hospitals only. [4]Occupancy totals are unweighted averages. *Preliminary report. Complete occupancy figures for January 1933 to November 1939 are given on page 1010 of The Eighteenth Hospital Yearbook



Occupancy Continues at High Level During Month of June

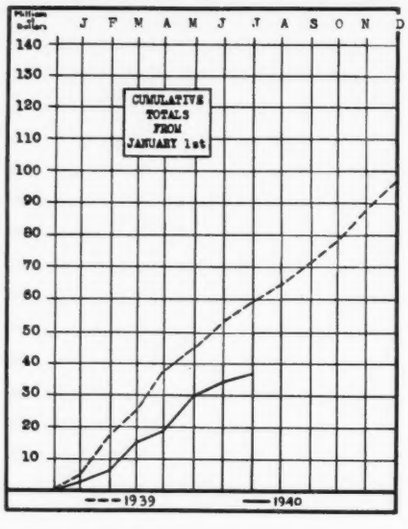
Occupancy in the voluntary general hospitals for June, according to preliminary figures, continued at the same rate as in May. The revised figures for May as printed this month are slightly lower than the preliminary figures that were available when last month's issue went to press. In the two regions in which changes are recorded for the June figures, they are higher than the May figures. These areas are North Carolina and New Orleans.

Whatever minor changes may occur as more complete reports are received it is apparent that occupancy in the nongovernmental hospitals is continuing at a high level this year.

In the governmental general hospitals, also, occupancy remains up. In several of the areas from which our reports are received, there have been additions to hospitals during the past several years. Crowded conditions continue in spite of these additions to both the voluntary and the governmental hospitals.

Hospital construction continued at a modest scale during the period from June 17 to July 15. A total of 25 new projects was reported during this period. They involved a cost of $3,345,000 and bring the total construction budget of hospitals since the first of the year to $26,632,000, as compared with $59,140,000 for the same period of last year.

HOSPITAL CONSTRUCTION



Of the new projects reported during the past month, four are for new hospitals to cost $461,000; there are to be 16 additions to existing hospitals, of which 14 will cost $2,161,000; two alterations are to cost $49,000 and three nurses' homes will total $675,000.

The general wholesale price index of the *New York Journal of Commerce* remained practically unchanged at 78.8 for the period from June 15 to July 15, the advances in price for some lines canceling the lower prices in others. Grain prices continued to drop, the index going from 65.1 on June 15 to 60.5 on July 15. On May 11, the index of grain prices stood at 82.2. The general food price index, however, advanced somewhat, from 65.3 to 67.6. Textiles, fuel and building materials all eased off slightly, the indexes moving from 68.4 to 67.4, from 86.5 to 86.0 and from 98.5 to 97.5, respectively.

Drugs and fine chemicals continued their steady rise in price, according to the index of the *Oil, Paint and Drug Reporter*. From June 17 to July 15 this index went from 203.3 to 203.8. Last January 1 it stood at 196.4.

A substantial increase in retail food prices brought the cost of living of wage earners up 0.5 per cent from May to June.

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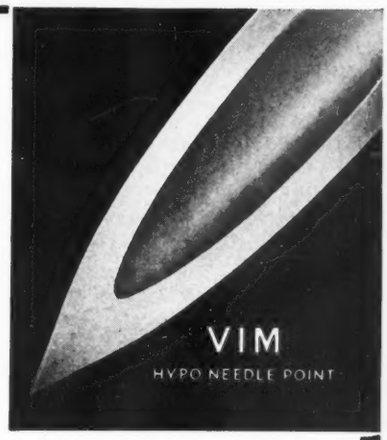

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SMALL HOSPITAL QUESTIONS

This department is conducted with the cooperation of Gladys Brandt, R.N., Cass County Hospital, Logansport, Ind.; Alloys F. Branton, M.D., Willmar Hospital, Willmar, Minn.; Mrs. Jewell W. Thrasher, R.N., Frasier Ellis Hospital, Dothan, Ala., and others

Question: Is it lawful (and safe) to have only one surgeon in the operating room at time of operation? We have only 30 beds and it is frequently difficult to obtain a second doctor.—M. O., Colo.

ANSWER: There is no law requiring more than one surgeon in the operating room during an operation, but, if anything should happen to the patient, the hospital or the surgeon might be held responsible for not having provided adequate care and protection. From the standpoint of the moral responsibility, it is the duty of every doctor to surround his patient with an environment that will ensure his safety and efficient care. A surgeon should have a capable medical assistant at every major operation in order to give the patient proper care. It occasionally happens that a surgeon is suddenly taken ill or collapses while operating. Therefore, there should always be somebody available who could carry on reasonably well, at least, until further assistance is obtained. By a medical assistant, I mean one who is a graduate of medicine and who is capable of assisting at operations.

Thus, not only for the efficient care of the patient but for his own protection and that of the hospital, a surgeon should have a capable assistant for every major operation.—M. T. M.

Question: Are county hospitals liable for the negligence of their employes? Of their medical staff?—C. R. L., Idaho.

ANSWER: As a general rule, the county is regarded as a political subdivision of the state and cannot be sued without the consent of the legislature. Most legislatures have made no provision that would permit a county hospital to sue or be sued; therefore, no action can be maintained. Public policy is the theory of immunity extending to such county hospitals but this would not extend to the insurance carrier of such hospital.

If a hospital that is maintained by a county is regarded as of charitable nature, the county is entitled to the same exemption from liability for the alleged negligence of its employes as is allowed private hospitals that accept pay patients but are not operated for profit.

In Wisconsin it has been held that a patient can recover damages from a county hospital superintendent for breach of duty if he is guilty of failure to furnish proper medical care and provides treatment that results in injury to the patient.

Alabama has held that the government has a mandatory and imperative duty to make suitable provision for its needy citizens but there is no obligation imposed on the county for the negligent acts of agents or servants.

A pay patient in a county hospital in Idaho recovered damages for injuries when a nurse administered the wrong solution.—SISTER A. J.

Question: What are the best combinations for ensuring good service in the laboratory, x-ray department and pharmacy in a 65 bed hospital?—C. N. R., Mo.

ANSWER: The number of departmental personnel members required is governed by the activity of each department. Few small hospitals have a pharmacy, but those that do should select a registered woman pharmacist with secretarial training whose extra time could be devoted to clerical work in the laboratory or the superintendent's office.

There should be at least two registered technicians trained in both x-ray and clinical laboratory technics. An aid to serve the pharmacy and laboratory is desirable to relieve the pharmacist and technicians of many tasks and errands that do not require skilled labor—G. B.

Question: What memorials are there that have a "sales appeal" which can be offered as an incentive in raising funds for new buildings?—R. S., Ohio.

ANSWER: The most attractive memorials are nurseries, rooms for maternity patients, wards, particularly children's; private rooms; x-ray, laboratory, surgical and obstetrical units. The controlling factors are, first, the prominence of the space and, second, their scientific value. However, it is unfair to other memorial subscribers if a foyer or lobby is memorialized, because of its dominating prominence.

Memorial prices are extremely important. It is misleading, and even unfair, to refer to memorials as endowments unless they actually meet the maintenance cost of a particular unit; and, of course, it is silly to talk about the endowment of a private room. Memorials that provide merely for the furnishing of a room should be avoided.—L. H. S.

Question: Do small hospitals now give sick leaves and vacations to general duty graduate nurses? If so, how much? If not, should we give them?—G. F. D., Iowa.

ANSWER: A questionnaire survey made in Illinois, Indiana and Wisconsin hospitals in 1938 indicated that the majority of hospitals in that area do give vacations with pay to general duty nurses. Of the 78 hospitals that returned the questionnaire, only 5 reported that they do not give any vacation with pay; 8 hospitals did not answer the question, and the remaining 65 reported as follows: one week allowed, 10; two weeks allowed, 41; three weeks allowed, 9; four weeks allowed, 2, and a full month allowed, 3.

The returns on the questions regarding sick leave were not broken down into the various categories.—M. B.

Question: Must interns and residents be licensed before they can start to work in the hospital?—L. M. B., Calif.

ANSWER: As a rule interns are not licensed. The theory is that they are not doing independent work either in the hospital or in private practice, but are subject to supervision in the process of completing their medical education. Licensing of residents depends upon state laws and upon the rules of state boards of licensure. Residents are frequently licensed on the theory that they are practicing medicine independently.

There is a growing feeling, however, that the residency is a continuation of graduate medical education and that, therefore, the resident does not in actual fact practice independently.—R. C. B.

Question: Should graduate general duty nurses pay for breakage?—M. V., Mass.

ANSWER: In our institution all professional departments keep a breakage record that includes the following data: "Date, Article Broken, By Whom, How Broken." Once a month the lists are collected; if the breakage appears to be the result of carelessness the replacement cost is collected. With some articles, depreciation is considered and charge made accordingly. We are convinced that the ruling tends to reduce carelessness. Private duty nurses are also charged.—G. B.

LOOKING FORWARD

El Libro del Hospital Moderno

THE Modern Hospital Publishing Company, Inc., has on the press the first edition of *El Libro del Hospital Moderno,* the book of the modern hospital. This book, in Spanish, summarizes a large body of material on hospital practice in the United States for our confreres in Central and South American countries, many of whom over the years have indicated a desire for some summary of the basic philosophy and practice guiding the hospitals of the United States.

The text is generously illustrated with photographs, diagrams and floor plans. In addition, there are an extensive directory of hospital products and a catalog section.

The preparation of such a book has involved much labor on the part of the editorial board, the contributors and the staff of The MODERN HOSPITAL. No expense has been spared to make the book authoritative, helpful and attractive and to give it excellent literary quality. The MODERN HOSPITAL has been willing to undertake the substantial risk and added responsibility involved as a contribution to better understanding and closer relations among the hospital people of the Americas. The same spirit has been evident among those who were asked to contribute.

The book will be distributed to all of the hospitals, clinics, medical schools and leading health and welfare officials of the Latin American countries, as well as to some of the outstanding medical men.

The publication of this book is, of course, only a first step in the development of closer relations in this hemisphere. The meeting of the first Latin American Hospital Congress in Santiago, Chile, last fall was an important event. The hospital institutes now being planned by the American College of Hospital Administrators and the American Hospital Association should be helpful. The committee on Latin American cooperation of the American Hospital Association, under the able chairmanship of Dr. Malcolm T. MacEachern, will doubtless present an interesting and constructive report to the Boston convention. In a related field, the American Medical Association is contemplating a plan to act as host at its 1942 convention in Atlantic City to physicians from Latin American countries.

All groups that are working toward inter-American understanding in the hospital field should cooperate closely with one another. The time seems to be ripe for a joint committee representing these groups.

Defending Democracy

THE totalitarian attack on democracy has implications for all Americans, including those of us who are devoting our lives to hospital service. According to the Nazi-Fascist-Communist philosophies, democracy has failed as a way of life and as a method of accomplishment. In Italy, Germany, Russia and some of the conquered countries, the will of one man is to be substituted for the collective judgment of a whole people and individual variation is to be sacrificed to conformity to an accepted stereotype.

The dictatorships today are offering a powerful challenge. In the world of the future, it may not be enough for the democratic countries to feel certain that they have a philosophy that will produce better literature, finer music and drama, greater scientific advances, more important contributions to religion and better adjusted human beings. It may be necessary for the democracies to demonstrate also that they can organize as effectively as the totalitarian states and can carry on the economic life of a country to the greatest advantage of all of its citizens.

Our hospitals stand out as landmarks in the advance of civilization. Here science and philanthropy unite to produce some of the finest fruits of human aspiration. Our typical hospitals are refuges for those in anguish of body or mind.

But have we examined ourselves to be sure that we do all we can to preserve democratic ideals and

make democracy fully effective? Have we joined hands with other hospitals in the community or region to work out the most effective hospital system for the area we serve? Have we eliminated needless duplication of services? Have we checked carefully to be sure that all needed types of service are being rendered as fully as possible to our communities?

In our relations to our employes, does a democratic spirit prevail? Is each employe made to feel that he is important to the work of the institution and that his contribution, whatever it may be, is appreciated and respected? Have we utilized the technic of group discussion? Do our associates think of us as teachers and counselors rather than taskmasters? In the school of nursing have we developed student self-government so that our graduates have become accustomed to the responsibilities as well as the privileges of citizenship? Can they take the positions of community leadership to which their education and background entitle them?

In our personal activities, are we ready to undertake the civic burdens that go with active participation in the democratic process? Do we consistently cultivate that tolerance and respect for the opinions of others which is the bedrock upon which true democracy must be founded? Are we careful to judge each individual on the basis of his own merits rather than on his race, class or other accident of birth?

Every American citizen today should rededicate himself to the difficult task actually of practicing the ideals of democracy that stirred the imaginations and aroused the valor and self-sacrifice of our forebears.

Executives' Reserve Corps

IN THE last great international conflict, the number of competent hospital administrators available was found to be wholly inadequate to meet the need that suddenly arose. As a result, large governmental hospitals were placed in charge of men who were without doubt splendid physicians but who were, nevertheless, wholly untrained in administrative work. Some there were and are who contended and still do so that civilian institutional executives are not likely to succeed in military posts. But certainly if this were true, and this seems doubtful, physicians of little proven executive ability would by the same token be even less likely to be effective as heads of large governmental hospitals.

Base hospital units that were in service two decades ago are now by federal request being reorganized. This step is no doubt wise and proper. But should not the attention of the federal government be called to the wisdom of preparing now a large available group of civilian administrators for future active military service? Perhaps short courses in governmental paper work and other phases of military hospital administration would be a proper approach to this type of preparedness. These could be widely scattered throughout the United States so that necessary travel could be reduced to a minimum. Perhaps the organization of a Hospital Executives' Reserve Corps would be the result of such an activity. If a Medical Reserve Corps is justified, why not one for such necessary officers as those especially fitted to conduct hospitals?

"Haves" and "Have-Nots"

HOSPITAL administrators who are troubled by the progressive widening of the gap between the supply of philanthropy and the needs of charity, particularly in the voluntary hospital, must take two psychological phenomena into consideration.

On the one hand we find that many men who are on the plus side are reluctant to share their gains with their less fortunate neighbors. They give little or nothing to charity and offer every kind of resistance to the tax collector. Those who possess anything that can be shared are in the position of a substantial minority, the number of which is still further reduced, for philanthropic purposes, by those who will not share as they should. Spontaneous giving seems to be more productive than the kind that requires prolonged forethought.

On the other hand, men who are on the minus side are entitled to social and medical security, even though they sometimes have a tendency to covet their neighbors' property. Religious teaching protects both groups while enjoining the "haves" elsewhere to be charitable toward the "have-nots." Give a man a full dinner pail and his tendency to revolt will be reduced proportionately. It is the struggle for existence that makes men rebellious, and any aggravating influence makes matters worse.

The gentlemen's agreement under which voluntary hospitals work with philanthropy should somehow be converted into a contract that is more binding. If a man is fortunate enough to belong in the "have" classification and desires to enjoy the respect of the community, he must be willing to commit himself in advance to the hospital in such a way that neither he, the community, nor the "have-not" patients in the wards will have reason to complain.

We cannot obtain financial contributions from the "have-nots," and if, by a process of painstaking education, we are unable to improve on the share which philanthropy contributes, we are justified in demanding increased taxation for this specific purpose and subsequent government support of philanthropic enterprises. The basis of taxation in the civilized state is that the rich must take care of the poor. Government support would doubtless create other problems, but none that would be quite as serious as financial bankruptcy and failure to take full advantage of every scientific method of curing or relieving sickness.

Community Relations

A Program for a 50 Bed Hospital

MALCOLM T. MacEACHERN, M.D.

My name is Jesse Jones and I am running a 50 bed community hospital. What can we do to improve our public relations? We can't afford a full-time expert; where can we get the service we need? Are any small hospitals carrying out a true public relations program? Please help us but remember the size of our budget and that I am the engineer and accountant part of the time.

NOBODY, Mr. Jones, can tell you how to improve hospital public relations without knowing all about your hospital, all about the people who work in it and all about your community.

Individualizing your own situation is the greatest factor in forming and maintaining good public relations, especially in a small town. In all the world there is no other hospital exactly like yours, no other community just the same. All the abstractions involved in theoretical public relations simmer down for you to a give-and-take process governed in its details by peculiarities of your own town and townspeople.

Your hospital has to fit into its community like a perfectly cut piece in a jigsaw puzzle, a piece that belongs to that particular puzzle and would have to be altered to fit in any other.

Your basic public relations problem is shaping your hospital to fill actual needs. Your next problem is to show your community how desirable it is that this important piece be well and amply proportioned. Then you must convince the citizens that their help is necessary in this achievement.

In small communities the people have the opportunity to notice everything. That fact eases one part of the public relations problem and at the same time makes it difficult in another respect. It's easy to make friends for the community hospital, much easier than it is in the cities. To a degree not even understood in cities, the members of the hospital staff play the part of the good neighbor in the rural and semirural community, making of the patient's first hospital experience an introduction to lasting personal friendships. In the city a hospital has reputation and atmosphere as an institution; in the town it acquires standing mainly through people's personal feeling toward Doctor Smith, Superintendent Jones and Nurse Mary Lee. Good will is inspired through the personal friendship route, also, with the heads of business, professional, social and civic organizations. Keeping good will and translating it into active support under the constant close scrutiny to which the small town hospital is subjected constitute the determining steps in your task.

You ask, "Where can we get the service we need?" By this question you betray the commendable quality of being able to recognize the value of specialized help. Some small hospital administrators carry self-sufficiency to impractical extremes when they try to perform too many kinds of executive duties. Development of special insight and of special skill in expression is demanded in some aspects of public relations work. The overburdened administrator has not the time, the patience or always the talent for it. Where can he turn for help within the limitations of his budget? Often the answer is: Right in his own hospital and community.

We can't, as I have said, Mr. Jones, tell you how to improve your public relations without going down to Blanktown and getting acquainted. But, perhaps, we can suggest what you can do to discover the solution for yourself. You should begin with

THE HOSPITAL STAFF

When you employ people, do you look for the quality of friendliness? Deliberate search for this quality and cultivation of it in members of the hospital staff are a public relations task. The satisfied patient, his family and friends are the most powerful emissaries of good will a hospital can have and in the small community their testimony travels quickly from fireside to fireside. Friendly service can't take the place of efficient service, but the extra quality of human warmth can make efficient service something to be long remembered with responsive gratitude.

The mother at the bedside of her dying child suffers an added pang when the nurse performs her duties with never a compassionate glance or word, and that omission can leave hatred of the hospital intermingled forever with her grief. Good public relations are built chiefly on the day-to-day incidents, many of them heartrending, in which the hospital folk should allay mental distress as well as physical suffering.

A second consideration in connection with the hospital staff is making full use of special abilities, some of them outside the line of regular duties. This has two advantages. One is that it makes for a better satisfied personnel; everybody likes to have his aptitudes recognized and put to use and work ceases to be drudgery when there is connected with it expression of personality in a good cause. The other is that the hospital

can profit by talents that members of its staff possess. Has some doctor, nurse or telephone girl artistic talent? Frescoes, posters, leaflets and illustrations for newspaper and magazine articles can be used to present graphically to the public the work of the hospital. Is there dramatic talent or speaking, singing, playing or writing ability? All these can be employed in improving public relations by personalizing the hospital to the community. They can be employed indirectly as well as directly by encouraging these members to aid other organizations. In return, interest can be developed through soliciting talent from the other groups when occasion arises in which the hospital can use it. Thus, an exchange is effected through which the hospital interwinds itself with all community activities.

THE COMMUNITY

Sometimes it is suitable and wise to acknowledge dependence upon others. Why should not the hospital administrator turn to citizens of his community for help that they are qualified to give? Nothing cements good will better than a feeling of helping direct an enterprise. In strictly medical and technical hospital matters the administrator must hold the reins but, when it comes to educational work, fund raising and public relations, he can yield them to another now and then if he sits beside the driver and sees that the proper course is held.

Newspaper Stories.—You want frequent, well-written articles about hospitals in your local press, Mr. Jones. You have an obligation to educate the public in disease prevention and in health conservation. But you have no time to write them and, perhaps, nobody on the staff has an aptitude for this sort of writing. An appeal to the editor will nine times out of ten result in enthusiastic cooperation; the result will be better articles than amateurs could prepare, written either by himself or someone on his staff. There you have an advantage over city institutions. Ordinarily, they don't have on their newspapers people who compare with the small town editor in all-round talent willingly exerted for the good of a cause.

Radio.—You want time on the radio, but you don't know how to fill the air with live, interesting talks and comment. Appeal to the chief of your local broadcasting station. Here, again, you have an advantage over the city hospital. It's much easier to gain an audience with the chief, much easier to win his interest, than it would be if you had to deal with a metropolitan station, with its large staff and great activity. Your station will usually give you help with your broadcasting problems, and give it readily.

Talks and Lectures.—You want talks given before schools and clubs. But often conditions are such at the hospital that you can't leave. Appeal to some prominent layman to take your place and the talk may be more impressive coming from a disinterested source.

In other words, the building of good public relations in the small community consists partly in relinquishing some of the work to the members of the community. Sometimes that takes more time than doing it yourself but it serves a double purpose.

OUTSIDE HELP

Public Relations Counsel.—You say, Mr. Jones, "We can't afford to hire a full-time expert." What would you do with one if you could? Unless he proved extremely versatile and interpreted public relations duties so broadly as to include serving graciously at the admission desk part of the time and following up patients after discharge, he would in the small community give too separate an emphasis to an aim that should appear as an integral part of every aspect of hospital service. The townspeople might resent the spending of funds that they had contributed for an objective whose connection with the care of the sick could be traced only in roundabout fashion.

Remember always the critical eye of the villager. In a 50 bed hospital employment of a full-time public relations person would be out of proportion to expenditures for other purposes. Some combination of duties might be worked out but what it would be would depend upon your own peculiar situation.

Cooperation Among Hospitals.—If there is more than one hospital in your town or within the same county or other definite area, an arrangement might be made to cooperate in the handling of some aspects of public relations. More and more in the cities a trend appears toward general direction of public relations through a local council of hospitals. This practice might well be followed by hospitals serving small towns and rural areas. Hospital publicity gains in effectiveness by subordinating the individual institution to the idea of hospital service as a whole in the community. Separate striving is less effective than cooperative effort in hospital work, in which should enter no element of competition. However, only the more general aspects of public relations work can be furthered by joint effort, when more than one community is involved.

Books, Journals and Organizations.—You do not struggle helplessly and alone, Mr. Jones, in your effort to improve public relations. At your elbow you may have books and periodicals containing accounts of experiences in other small communities and rules to govern the establishment of relationships along ethical lines. By dispatching a letter you can get specific suggestions from the hospital associations, medical organizations and the American College of Surgeons. These may help you, even to the extent of furnishing you articles and talks of a general nature that you may release locally. You also may attend the hospital standardization conferences of the American College of Surgeons and the meetings of the hospital associations, from which you will gain ideas on how to improve your service.

You have mainly to be a wide-awake opportunist, Mr. Jones, to establish a successful public relations program without undue tax on your own rare spare time.

PROGRAMS OF OTHER SMALL HOSPITALS

You ask whether there are any small hospitals that are carrying out a true public relations program, "not just a bunch of undirected publicity." Yes, there are. Do you think that the hospital that inspired the following editorial could have done so

without consciously planning a program designed to win public confidence? Editorials like this don't just happen. They are earned, earned the hard way, by consistently high quality performance. A spirit of sympathetic service is deliberately impressed upon the consciousness of the people until they respond with appreciation and support.

"The Cape Cod Hospital was made possible and started to serve with the blessings of a grateful public. It made a humble beginning but it grew. It grew in influence, it grew in size and it grew in public esteem. Gradually it became recognized as an essential institution throughout the Cape and eventually it became recognized by the American College of Surgeons as an approved hospital.

"The standards which made possible that great honor have been always maintained. This year the recognition comes again to our hospital, and we can point with pride to one of the leading institutions in the country, efficiently operated, modernly equipped and claiming one of the best staffs of surgeons and nurses in America. NOTHING IS TOO GOOD FOR OUR INSTITUTION AND NO EXPENSE HAS BEEN SPARED to bring our institution to these high standards.

"As we observe Donation Week, the response proves the continued faith and confidence of a generous and appreciative public. Our Cape Cod Hospital deserves all the praise which has been rightly accorded it, and we can breathe easy in the knowledge that should emergency arise, there need be no more fears of fatal delays or painful ambulance trips to distant cities. There is nothing better than what we have right here on our front door steps. Our own Cape Cod Hospital!"

That editorial was published on Oct. 26, 1939, in the *Independent* of Harwich, Mass. It's a classic with which to illustrate that it can be done. Notice, Mr. Jones, how it shows that confidence begets generosity and that, therefore, adequate support hinges upon having your whole service permeated with the ideals of good public relations. The subject covers much more territory than it seems to when first you stop to think about it, doesn't it?

The managing editor of this magazine, in his new book, "Hospital Public Relations," declares that hospitals in the United States today face the most serious crisis in their history and that the "intelligent use of public relations programs may spell the difference between continued growth and stagnation."

That puts the problem posed in your letter as one not lightly to be solved, Mr. Jones. Even a bigger budget for that kind of work would help you very little unless you yourself took stock of every resource available to you in hospital and community, publications and conference room and drew upon them for help in suiting your program to your own institution and service area. Make the improving of public relations a service in itself—promoting health through spreading knowledge of health principles and of the hospital's rôle in the advance of medical science—and you will soon see your program showing evidence of aim and direction. Feel good will toward your community first; then seek reciprocation from the community.

Good Hospital Administration

CHARLES S. PITCHER

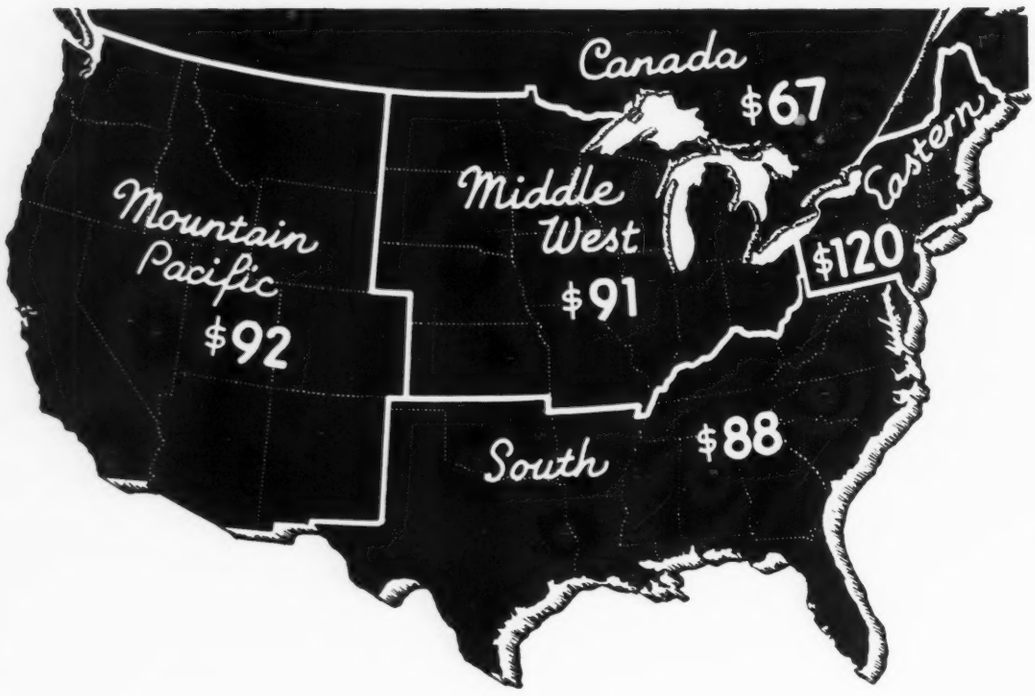
MANY of the difficulties encountered by hospitals in handling their personnel are caused by diffusion of thought in regard to principles of organization and administration. A cardinal principle of good hospital administration is that there should be someone in authority who knows what should be done and who is not afraid to say "yes" and "no" in a pleasant but convincing manner.

The executive should uphold the actions of his department heads. He should resist the employes who go directly to "headquarters" instead of first discussing their problems with the department head. When these individuals come to the administrator he should send for the department head to discuss the proposition. This policy is especially valuable in making financial arrangements when admitting patients and in collecting patients' bills.

Hospitals are at times compelled to cope with clever and crafty people who make a business of "bilking" the public. Another class with whom hospitals have to deal is the pathological "chiseler," who, if he is charged $2, will argue for a $1.50 charge; or, if the original charge is 50 cents, he will attempt to have it reduced to 40 cents. The meanest type of person with whom to deal is the one who attempts to break the rules or tries to avoid the requirements of the hospital and, when he is stopped from doing this by a conscientious employe, reports the employe to "headquarters" for some fancied grievance. All complaints should be carefully investigated because too often the reason given for the complaint is not the actual reason.

Employes cannot be expected to enforce rules when the administrative officer fails to uphold them properly after they have done their duty. Another factor that seriously injures esprit de corps is failure to promote eligible employes to better positions when there are vacancies that they are qualified to fill. Hospitals need devoted and capable persons to man departments. These persons should be loyal not only to their own department as a unit of administration, but also to the hospital as the parent organization.

Mr. Pitcher is a hospital and institutional consultant of Philadelphia.



Here are average salaries paid to hospital housekeepers in the various sections of North America. The East with its large institutions leads once more.

Hospital Salaries—Housekeepers

ALDEN B. MILLS

THE average salary for executive housekeepers as reported by hospitals is $98 per month. This figure results from returns sent in by 1388 hospitals, of which 636 gave a salary figure for a housekeeper.

If the hospital wrote on the questionnaire that the return was for a maid rather than a housekeeper, the figure was excluded. It is probable, however, that hospitals often did report salaries for maids under this heading. As yet there is no clear and widely accepted definition of what constitutes a hospital housekeeper or housekeeping director, as she is frequently called.

The average figure of $98 per month includes a fair allowance for the cash value of food, housing and laundry provided to the housekeeper. This varies from region to region depending upon the cost of living in the area and the valuation figures adopted by the person who filled out the questionnaire.

Salaries for housekeepers vary from less than $50 a month in 36 instances to more than $225 a month in four cases. The averages for the different geographic areas are similar, except for Canada and the Eastern States. The Middle West, the Mountain and Pacific states and the South had averages of $91, $92 and $88, respectively. In the Eastern States the average was $120 and in Canada it was $67. When comparisons are made by size of hospital, the Eastern States continue to pay the largest salaries and the Canadian provinces, to pay the lowest.

For all areas combined, the average salary in hospitals of under 25 beds is $63; in hospitals of from 25 to 49 beds, the average is $73; in the class from 50 to 99 beds, the average is $84; in the 100 to 199 bed institutions, it is $108; in the 200 to 299 bed hospitals it is $125; in the 300 to 499 bed hospitals the average increases to $149, while in the group of hospitals of 500 beds and over, the average is $154 per month.

From such data as are available it appears that salaries for executive housekeepers in hotels are much higher. In Chicago, in 1936, six large downtown hotels of 600 rooms or more paid an average of $271 per month plus room and meals; six high class residential hotels of from 400 to 800 rooms paid an average of $186 plus room and meals, and 14 medium size residential hotels of from 200 to 400 rooms paid an average of $156 per month. Chicago figures are generally higher than in smaller towns.

Of the 636 hospitals reporting housekeepers, 203 hold positions in hospitals of from 100 to 199 beds and 127 are employed in hospitals of from 50 to 99 beds. Thus, the hospitals of from 50 to 200 beds are the largest employers of housekeepers, although probably the 128 housekeepers reported from hospitals of 200 beds and over are more truly "executive housekeepers" in the sense in which this term is used by the National Executive Housekeepers' Association.

The percentages of hospitals that employ housekeepers are as follows: under 25 beds, 29 per cent; from 25 to 49 beds, 31 per cent; from 50 to 99 beds, 36 per cent; from 100 to 199 beds, 67 per cent; from 200 to 299

beds, 74 per cent; from 300 to 499 beds, 75 per cent, and 500 beds and over, 90 per cent.

There has been a great deal of interest in the past few years in the idea of setting up standards of education and experience for hospital housekeepers. As yet, there are no standards and most experience has been on a hit and miss basis. A few of the ablest housekeepers have accepted apprentices for longer or shorter periods but no carefully worked out program for study and experience has been adopted.

Several universities give courses in dietetics and institutional management that relate more or less to the field of housekeeping. Others are considering the development of such courses. In view of the facts brought forth in this survey, it is important that persons in charge of such courses keep in mind the needs of the smaller hospitals as well as of the large institutions. While the demand for trained housekeepers is probably most insistent in the larger institutions, there are more places to be filled in hospitals of less than 200 bed capacity.

Inasmuch as the housekeeping department spends 20 per cent or more of the total hospital budget, the housekeeping director must be a competent person with adequate training for her extensive responsibilities. Mrs. Alta M. LaBelle of Michael Reese Hospital, Chicago, has outlined the subjects with which the housekeeper should be familiar.

Management (principles of organization; job analysis and job grading, and methods of scheduling work).

Cleaning procedures (equipment for and methods of cleaning floors, upholstery, rugs, walls, paper and paint).

Accounting (budgets, statistical records, linen control systems).

Purchasing (diversified knowledge of all furnishings, supplies, and equipment used in housekeeping; trends in manufacturing; trade contacts).

Chemistry (simple tests on all housekeeping items).

Interior decorating (periods, woods, furniture repair and refinishing, upholstering).

Sewing (draperies, slip covers, specialties).

Architecture (reading blueprints).

Entomology (eradication of pests).

Psychology (personnel relations).

Public speaking.

The duties and responsibilities of the housekeeping director, as outlined by Mrs. LaBelle in The 17th *Hospital Yearbook*, include the following:

1. She discusses all major problems and policies with the administrator. She consults with him regarding the purchase of equipment, supplies and furnishings.

2. She hires, places, disciplines or discharges housekeeping personnel; keeps employment and time records; plans and inspects work, and delegates instructional duties to assistants.

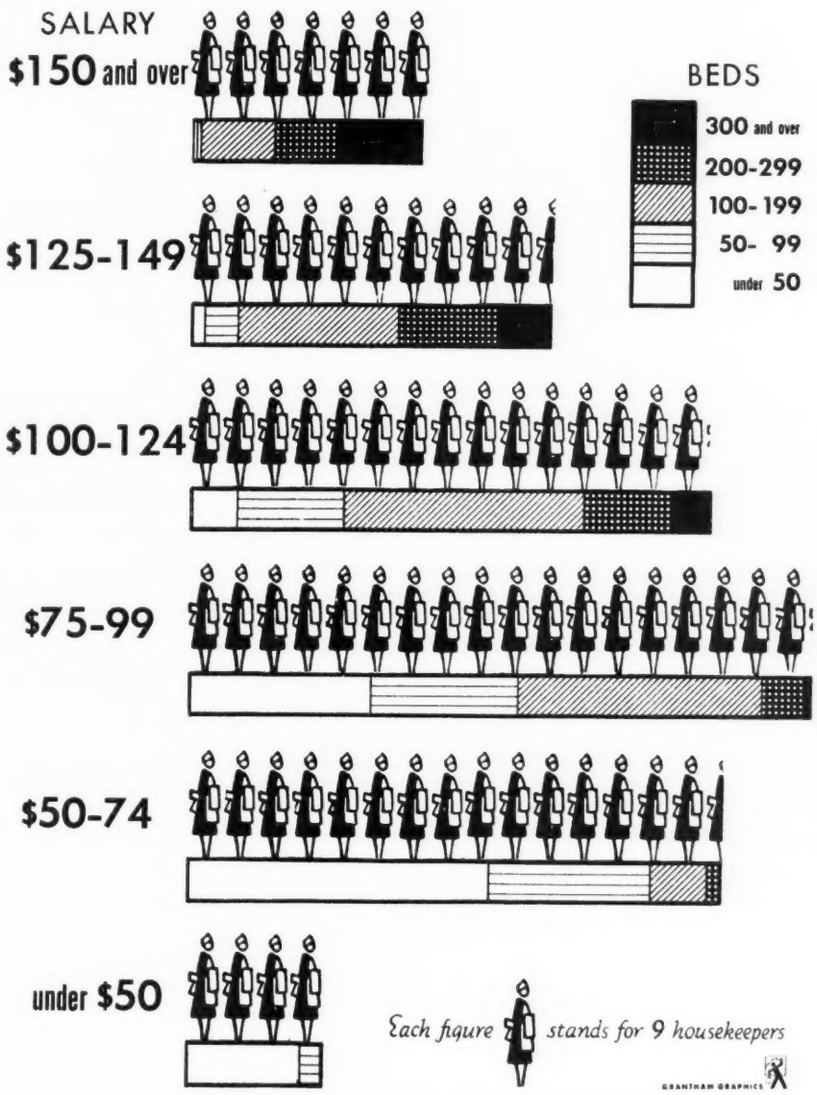
3. She requisitions supplies from the storeroom and supervises the stock in service.

4. She confers with the women's auxiliaries regarding furnishings, color schemes and the selection of rugs and draperies.

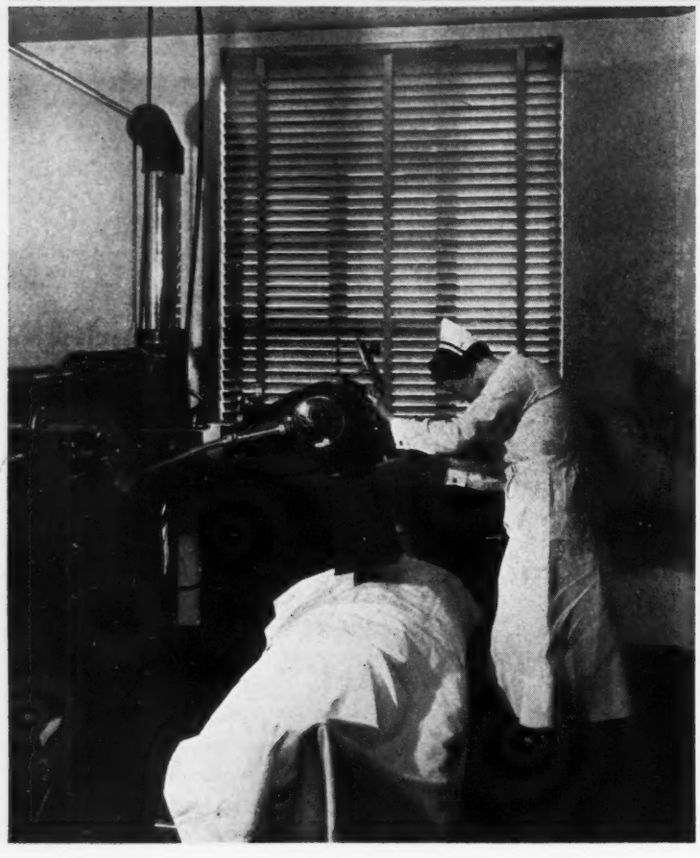
5. She cooperates with the nursing department, purchasing department, dietary department, business office, laundry, engineering department and auditing department.

6. She arranges a work schedule and appoints an assistant housekeeper for each building. She supervises the remaking of mattresses, the renovation of pillows and furniture repair and the activities of the housemen, movers, rug and drapery men and the floor maintenance men.

7. She assigns new employes to work with experienced personnel and provides special instruction to meet changes in policy or emergencies.



Somewhat less than $100 with full maintenance is the commonest figure.



Missouri's New State Cancer Hospital

Indigent citizens of Missouri have exclusive use of the new Ellis Fischel State Cancer Hospital at Columbia, Mo. The hospital, which opened in the early summer, has 85 beds.

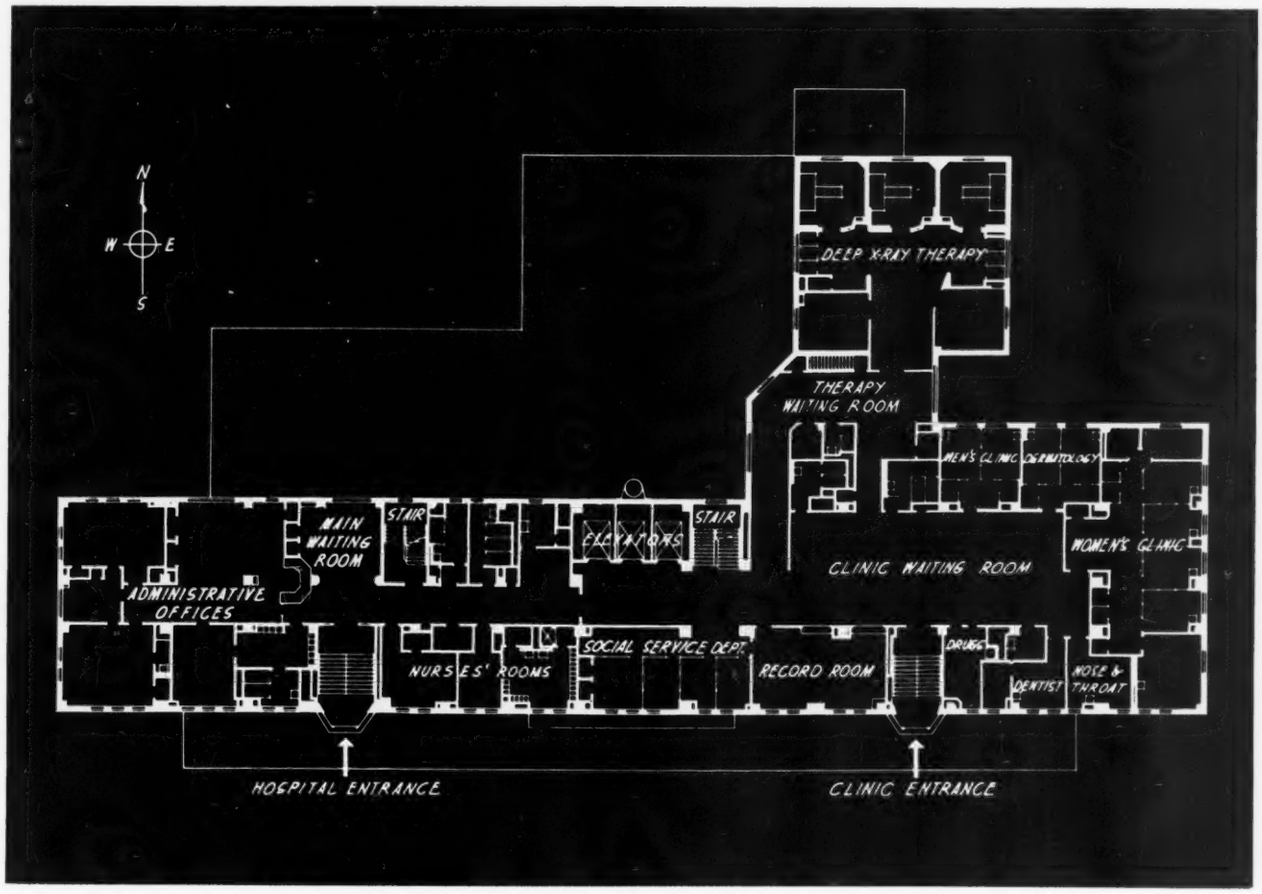
The institution is named for Dr. Ellis Fischel of St. Louis as a tribute to his outstanding work in establishing a definite cancer control program in Missouri. Unfortunately, Doctor Fischel did not live to see his dream of a state-wide plan for the control of cancer realized. He was killed in a motor accident May 14, 1938, while on cancer commission business.

A second untoward event was the death from cancer of Harry W. Seekman, administrator of the new hospital, a few days after his appointment. His successor is James L. Rogers of Spartanburg General Hospital, Spartanburg, S. C., who assumes his duties around August 1.

The hospital is staffed by a full-time medical director and radiotherapist, a surgeon-in-chief and pathologist, a part-time roentgenologist and dentist and a voluntary consulting staff made up of specialists from all parts of the state. The house staff consists of a chief resident and three assistant resident physicians.

Opposite Page: Exterior view of the new structure, a seven story brick building of buff and chocolate colored brick. The hospital was designed by Jamieson and Spearl, St. Louis architects. Shown also is one of three deep x-ray therapy machines. A total of 700 mgm. of radium is kept in a 2300 lb. lead safe. Much of the radium is in cells containing 1, 3 and 5 mgm., thus making available through the use of gold sheath needles and platinum capsules about eight times as much radium as would be available in fixed forms.

Left: Clinic waiting room, showing entrances to examining rooms. Above: Typical ward. Below: First floor plan. The second, third and fourth floors contain beds for patients. On the fifth floor are residents' quarters, library and conference rooms. Operating rooms and the diagnostic x-ray department occupy the sixth floor. Laboratories are located on the seventh. Metal beds and desks, aluminum lounge furniture, and stainless metal hospital utensils were purchased.



A Review of Physical Therapy

KARL HARPUDER, M.D.

DURING the last twenty-five years physical therapy has taken on a most important rôle in the modern hospital here and abroad. This is partly the result of new and better equipment. To a greater extent, however, it is the result of a more scientific attitude in the application of physical therapy and an increasing recognition of its value by the medical profession.

Numerous agents are employed in physical therapy at the present time. The most important one is heat, which is used for local applications and for systemic treatments. It is produced by simple heating pads, by radiation or by high frequency electric currents from diathermy and short-wave machines. Pads and radiation are effective only on the superficial structures. Diathermy and short wave produce heat superficially, as well as in deep tissues. Heat results in increased circulation, increased metabolism, relief of pain and relaxation of muscles. If applied to the entire body or large parts of it, it causes sweating and the elevation of the body temperature that is now known as fever therapy.

Hydrotherapy

Hydrotherapy in its most common form, the hot tub bath, is an effective form of general heat therapy, with the added effects of the buoyancy and the hydrostatic pressure of the water. The buoyancy abolishes about 97 per cent of the weight of the immersed body and thereby facilitates exercise. Medicated baths result in a simultaneous introduction of chemical agents that have certain therapeutic actions, such as carbonic acid or sulphur compounds, into the skin and body. Whirlpool baths and douches combine the mechanical effect of pressure with the temperature effects of the water.

Sunlight, visible artificial light and ultraviolet radiation are absorbed in the superficial layers of the skin or of exposed mucous membranes, there producing certain chemical changes that may have an influence upon the entire body. Ultraviolet rays cause the formation of vitamin D and of pigmentation and eventually inflammation; they have a generally stimulating and antianemic effect.

Heat and ultraviolet treatments frequently produce secondary reactions in the sick, similar to the effects of the injection of foreign proteins, which apparently are an important part of their therapeutic actions.

Galvanic currents of low intensity cause chemical changes in the tissues, followed by stimulation and irritation of nerves, muscles and the tissue cells generally. The stimulating effect upon nerves and muscles is even more obvious with interrupted galvanic, wave and faradic currents, which are used mainly to elicit muscle contractions and sensory nerve stimuli. The galvanic current is capable of carrying drugs applied superficially on the skin into the deeper skin structures and into the body. This procedure is called iontophoresis and is widely used with vasodilator substances for their local therapeutic effects and with heavy metals for their disinfecting and coagulating effects.

Massage in its various forms is second in importance only to heat therapy. Its main effects are the stimulation of the peripheral circulation and the lymph flow, stimulation of muscles and nerves and other deeper structures. Exercises have similar results, tending to develop range, control and skill of motions or to improve incorrect postures and motions. They may be active or passive, against resistance or free, and can be directed and controlled by man power or by mechanical devices.

Not a Causal Therapy

Physical therapy is, with a few exceptions (like fever therapy in gonorrhea), not a causal therapy. It attempts to combat the symptoms and results of disease and not the cause. In most instances it is not specific therapy. In principle, its effects are the same on whichever tissue or organ is exposed to its influences. Many of its agents are applied to the skin and affect the body to a great extent by their primary influence upon the skin.

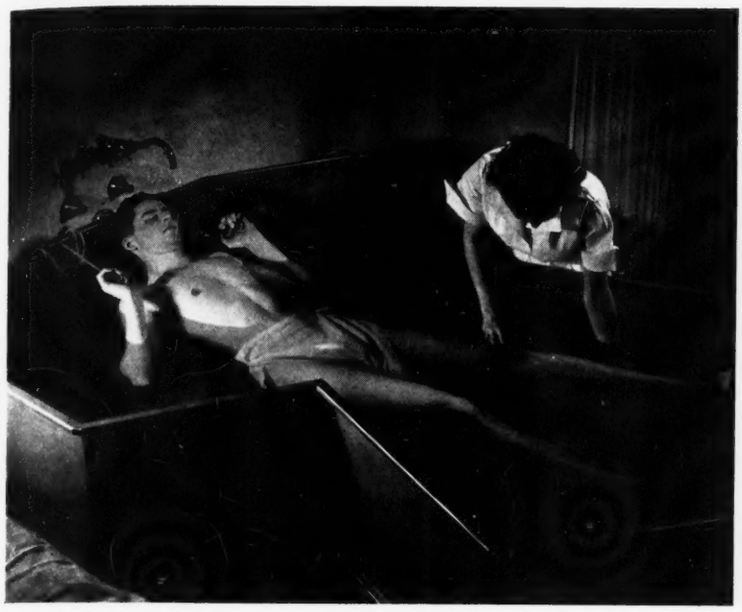
Physical therapy does not play a great rôle in most acute systemic infections. Ultraviolet radiation, massage and hydrotherapy may be an aid during the period of recuperation. Attempts are being made to use local diathermy and short-wave treatment in lobar pneumonia and lung abscess and the reports are somewhat favorable. Without doubt, such heat applications have a place in the treatment of pleurisy for the relief of pain and the absorption of exudates. An exceptional rôle is played by hyperthermia—fever therapy by physical means—in gonorrhea, mainly in gonorrheal arthritis and other gonorrheal complications. It is the generally recognized therapy of choice, curing from 60 to 80 per cent of the cases within one or two weeks. Here, physical therapy is a causal therapy.

In Local Infections

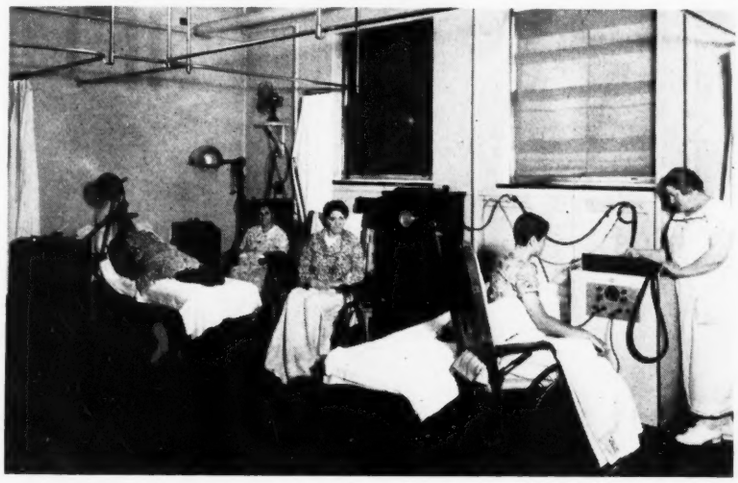
Physical therapy measures are also of great importance in local infections. The results of ultraviolet radiation in erysipelas compare favorably with those of radiotherapy. For furuncles, carbuncles, adenitis and cellulitis, short-wave therapy is one of the best, if not the best, forms of conservative treatment. In sinusitis, short-wave therapy is efficient and other forms of heat therapy have a definite value. Ultraviolet rays are of temporary benefit, at least in acne vulgaris and the epidermophytoses. For the latter, iontophoresis with heavy metals frequently effects a permanent cure.

Physical therapy is a most important aid in traumatic and orthopedic surgery. The early applications of

Doctor Harpuder is physical therapist at Montefiore Hospital, New York.

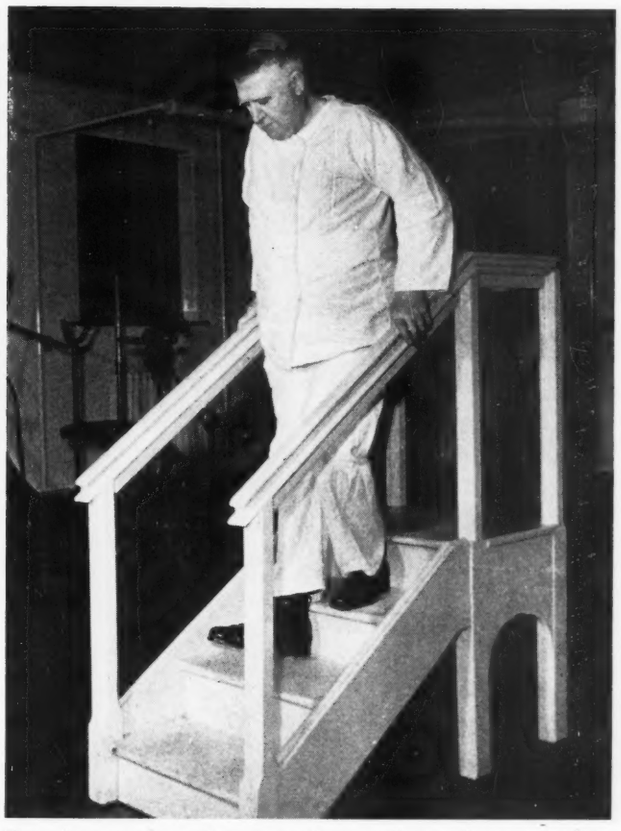


Hydrotherapy abolishes 9 per cent of body weight, facilitating exercise.



Electrotherapy stimulates and irritates nerves, muscles and tissue cells.

Heliotherapy consists of sunlight, visible artificial light and ultraviolet.



Exercises can be active or passive, against resistance or free, controlled by manpower (above) or mechanically (below).

Massage, second in importance only to heat therapy, is not illustrated. It stimulates the peripheral circulation, the lymph flow, muscles, nerves and other deeper structures.

heat, massage and exercise favor a solid bone union and are vital to the preservation and reconstruction of muscle and joint functions. Major traumatic nerve and muscle lesions, whether necessitating surgery or not, should be treated as early as possible with massage and electric stimulation to counteract degeneration and to enhance functional recovery. Minor traumatic lesions, like reduced dislocations, contusions, strains and sprains, can be completely relieved by a few heat treatments and massage or other physical therapy measures. In acute myositis, histamine-iontophoresis is the therapy of choice.

In Chronic Disease

These few remarks will suffice to demonstrate the valuable contributions of physical therapy to recovery in acute disease. The usefulness of physical therapy in chronic disease is almost universal. For the chronically sick, physical therapy is an important, and often the sole, reliever of pain. Frequently it offers the only, if sometimes slender, chance for recovery and a return to useful life.

The conservative treatment of tuberculosis of the bones, the joints, the peritoneum, the skin and the lymph glands mainly consists of diet, rest and ultraviolet or light-therapy. If surgery is resorted to in bone and joint tuberculosis, ultraviolet is still a valuable aid. Massage and electric treatments may be necessary during the after-care. Tuberculous skin ulcers, sinuses and ulcers of the mucous membrane are frequently, but not too successfully, treated with local ultraviolet applications. Active pulmonary tuberculosis is no field for physical therapy. In other chronic local infections, heat is being used to relieve pain and to increase local circulation and metabolism, thereby favoring cure of the inflammations. Short wave diathermy and sometimes other local heat applications are an efficient treatment for chronic pelvic inflammations. Intensive superficial or deep heat is a valuable help in chronic cholecystitis, in gall stones, kidney stones and intestinal colic for the relief of pain and spasm.

Physical therapy is of paramount importance in the treatment of arthritis. In rheumatoid arthritis the progress of the disease is frequently interrupted by mild hyperthermia treatments, and in the early cases the function of the joints can be completely restored by local heat applications, massage and exercises. In the advanced stages, at least some improvement in motion can be accomplished, and even the crippled arthritic can be made more comfortable. The anatomical joint alterations cannot be influenced in osteoarthritis, but pain and limitation of motion can be greatly helped and in early cases a result brought about which is close to a cure. Histamine treatments, heat and massage afford great benefits or complete relief in fibrositis, rheumatic myositis and tendo-vaginitis as well as in neuritis or neuralgia, *e.g.* in sciatica.

In Bone Diseases

In bone diseases, such as rickets and osteoporosis, where there is a deficiency in calcium deposit, ultraviolet is an aid in producing vitamin D within the body, although this method is inferior to the direct introduction of the vitamin in large doses. Early massage and exercises are important for the restoration of solid bones, the preservation of muscles and the prevention of deformities.

Physical therapy measures are of the greatest value in the treatment of peripheral vascular disease. In arteriosclerosis and endarteritis obliterans with insufficient blood supply to the extremities, we have no better means of developing collateral circulation than heat, the application of vasodilators by means of iontophoresis and carbon dioxide baths, and passive vascular exercise. Frequently in the earlier cases, a functional cure will result. In more advanced stages relief of pain and some improvement of the circulation can be accomplished. Even in the presence of ulcerations and gangrene, physical therapy presents a fair chance of avoiding amputation. The symptoms of spastic vascular obstruction can be completely abolished. Varicose ulcers respond well to physical therapy and the results in decubitus and other pressure-ulcers are frequently satisfactory.

Neurological cases represent a great number of patients in every physical therapy department. The real value of the treatment is limited. In many instances all efforts are futile when the disease has a tendency to progression. The results are favorable in polyneuritis and similar conditions in which pain can be relieved and muscle power restored by systemic or local heat, massage, electric stimulation and other measures, provided that nerve degeneration has not progressed too far. In diseases of the central nervous system the benefits of physical therapy are restricted to temporary symptomatic relief from pain, to the enhancement of spontaneous recoveries and remissions and to training of patients for the maximum use of residual functions. This is the case in hemiplegias, in combined sclerosis, in multiple sclerosis, in tabes and in postoperative conditions.

Physical therapy is frequently applied as a means of psychotherapy in hysteria and neuroses. If it is used by a physician within the course of a definite psychotherapeutic procedure, it may be a great help. If it is misused as a substitute for actual psychotherapy, the results will be disappointing, for example, the sole application of painful electrical stimuli in hysteria.

How Shall It Be Handled?

These last remarks lead to considerations of great importance; how shall physical therapy be handled in hospitals? We are dealing with a dozen or so different physical agents, some of them closely related to each other, applied in a score or more of diseases. This is possible because physical therapy is, with the exception of hyperthermia in gonorrhea, an unspecific therapy. At the same time it places upon the physician the responsibility of selecting the right types of cases among the many diseases, choosing the right time for treatment, of finding the correct dosage and of differentiating between treatments with related action. It requires physicians with a thorough general training, additional special experience and some technical knowledge to accomplish the best in physical therapy. Physical therapy never should be applied by technicians except under close supervision of a physician-physical therapist.

Hospital-Made Plaster Bandages

W. C. McLIN

HOSPITAL PREPARED plaster of paris bandages are as temperamental as a prima donna. One day the plaster sets perfectly and the layers fuse into a solid mass. Another day trouble may begin; the plaster may set too fast, the layers of bandages will not fuse and a laminated cast results.

This was a real problem at the State University of Iowa Hospitals owing to the fact that we have a large orthopedic service. A cost analysis based on the consumption of plaster bandages showed that a definite financial savings was being effected by preparing them in the hospital. Also, with the hospital prepared bandage, it was possible to suit the preference of the doctors.

The first consideration is, however, to provide the surgeon with plaster bandages which are adaptable to his individual technic and which will form a cast of maximum strength with a minimum of weight. The patient should not be subjected to wearing an unduly heavy cast. In order to retain the advantages of hospital prepared bandages and still meet our obligation to the surgeon and to the patient, we decided thoroughly to survey the methods used in preparing and handling the bandages and to find the cause of these occasional cast troubles.

The revision of our methods of preparing and handling bandages, prompted by this investigation, has produced gratifying results. The bandages are of uniformly good quality and the setting time of the plaster is consistent with the types of casts applied.

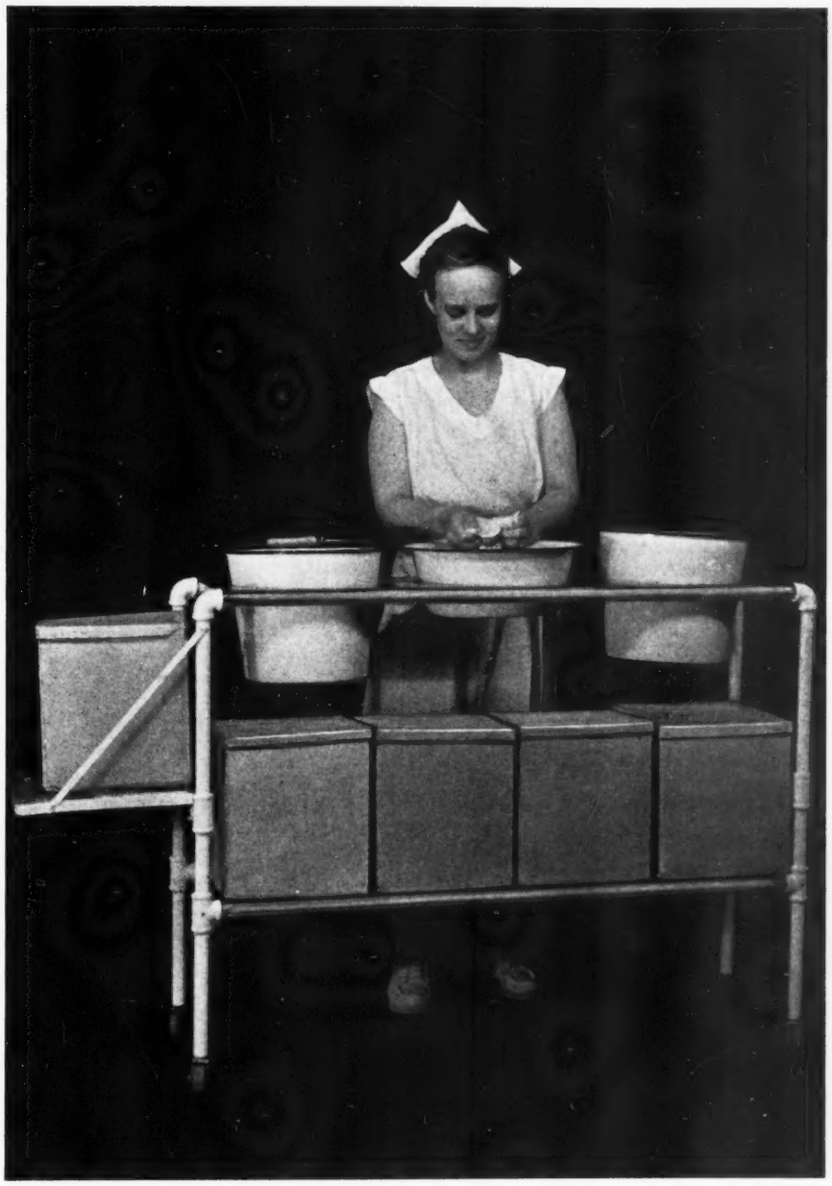
The formula as expressed chemically for plaster of paris and gypsum is:

$$2(CaSO_4 \cdot 2H_2O) \leftrightarrows (CaSO_4)2 \cdot H_2O + 3H_2O$$

(Gypsum) (Plaster of paris) (Water released by calcining)

As indicated by the formula, the ground gypsum rock is converted into plaster of paris by heat of 250° F., which drives off about 15 per cent of the water. This is known as calcining. The reverse action takes place with the addition of water to the plaster of paris to form gypsum as the cast is applied. The chemical change from plaster of paris to gypsum is brought about by a crystallization process; when this is complete the plaster is set. The closeness with which these crystals interlock determines the strength of the cast. It is essential, therefore, in order to ensure maximum strength of casts that the plaster be free from carbonates and other types of impurities.

The chemical change from plaster of paris to gypsum if pure plaster of paris were used would take from thirty to forty minutes. However, to be practical for surgical immobilization, the setting time of plaster of paris must be accelerated so that it sets shortly after the cast is applied. It is to be expected, naturally, that all the excess moisture in a cast will not escape from the cast for several hours after it has been applied.



This plaster cart has played a major rôle in solving plaster cast problems.

Mr. McLin is administrative assistant, State University of Iowa Hospitals, Iowa City.

In order to make our investigation into the chemical and physical properties of plaster of paris and gypsum as thorough as possible, we hired a university graduate student in chemistry to make chemical analyses of various brands of plaster. Also, through the college of engineering, tests on the compression and tensile strength were made on these same brands of plaster. Although the results of this work were most informative, it was mainly helpful in formulating the specifications for the plaster which we purchase.

Purchase of Plaster

We require that the plaster of paris we purchase meet the following specifications:

Specifications for Plaster of Paris

Setting Time	*Initial Set*	*Final Set*
Dental impression plaster	4 minutes	6 minutes
Orthopedic plaster	9 minutes	12 minutes
Average Chemical Analysis		
Purity ($CaSO_4 2H_2O$), not lower than	98.5%	
Impurities $CaCO_3$, etc., not over	1.5%	
Water of combination	5–6%	
Color		
Pure white		
Fineness of Grind		
Through 100 mesh screen	99%	
Through 200 mesh screen	96%	
Through 325 mesh screen	85%	

We use plaster of paris in two grades: dental impression with a setting time of from four to six minutes for small casts when almost immediate immobilization is required, and orthopedic plaster with a setting time of from nine to twelve minutes.

The plasters are procured in a special extrafine grind. We consider this most important because the extrafine ground plaster packs into the crinoline much more firmly than the coarser grinds and adheres better when the bandage is soaked. This results in more plaster being carried to the cast.

The setting time is one of the most important factors in determining whether a particular brand or shipment of plaster will make a satisfactory bandage. The plaster should be timed to suit the preference of the surgeons. After the desired setting time has been determined, constant vigilance should be exercised to see that each shipment and each container of plaster in that shipment are of the same setting time. Plaster that sets too slowly tries a surgeon's patience.

We run periodic setting-time tests before the plaster is rolled into bandages. The equipment necessary for this test is simple, consisting of a gram scale, a 50 cc. graduate, a stop watch, glass plates, small spatulas, rubber plaster mixing bowls and two Gilmore needles, one weighing ¼ pound and the other, 1 pound. This material, with the exception of the plaster bowls and the Gilmore needles, is available in most hospital laboratories.

The rubber plaster bowls and the Gilmore needles can be purchased from vendors of laboratory equipment. Since the Gilmore needles are rather expensive, we have them made by a machinist at a nominal cost. In constructing the ¼ pound needle, a piece of hexagon brass, 9/16 inch in diameter and approximately 3 inches long, is used. A hole is bored in the center of one end and a piece of carbon steel rod 1/12 inch in diameter is inserted, forming a point ¾ inch long. The instrument is then brought to the weight of ¼ pound by grinding the brass rod if it is too heavy or by running solder on it if it is too light. The 1 pound needle is similarly constructed except that the piece of hexagon brass used is 1 inch in diameter and 3¾ inches long with a carbon steel point 1/24 inch in diameter.

The procedure for checking setting is, likewise, simple. First, the ratio of water to the plaster being tested must be ascertained. This information may be obtained from the company from which the plaster was purchased or may be calculated by the following method in the laboratory.

Weigh out 50 gm. of plaster, add this to 30 cc. of water, then place in a rubber mixing bowl allowing mixture to soak for 1½ minutes; stir for fifteen seconds with a small spatula and pour the mixture on a clean glass plate. The correct water-plaster ratio is indicated by the size of the pat into which the plaster settles freely on the glass plate, which should be a pat approximately 3½ inches in diameter. By the process of elimination the proper amount of water to be used in mixing 50 grams of plaster can be determined. For instance, if the pat is 3 inches in diameter, the consistency of the mixture is too thick and more water should be used; if the pat is 4 inches in diameter, less water is needed.

After the correct plaster-water ratio has been determined, the procedure for checking the setting time of the plaster is similar to that for finding the plaster-water ratio, the difference being in that the amount of water is known to which the 50 gm. of plaster is added. Timing should begin when the plaster is poured into the water. After the plaster is mixed and poured on the glass plate, using the same technic as described for plaster-water ratio, the initial setting time is determined when the ¼ pound Gilmore needle point is placed on the pat of plaster and will no longer make an impression on the surface. The final setting time is determined in the same manner using the 1 pound Gilmore needle.

Plaster Storage

Another important phase in the preparation of satisfactory plaster of paris bandages is the storage of the reserve supply of plaster. It is important that the storage place be dry and of a fairly constant temperature throughout the year. In addition, the plaster should be packed in a protective container, such as a metal can or a standard wooden barrel with a special paper lining.

If the stored plaster of paris comes into contact with excessive moisture, some of the particles will start to crystallize, causing the plaster to be lumpy.

Crinoline is most commonly used as the carrier for the plaster, although a few orthopedic surgeons prefer unsized gauze. Despite the fact that crinoline is a well-standardized product, several points should be noted. The crinoline should be sized with a substance that will not affect the setting time of the plaster and in such a manner that the spaces between the threads, or "windows," are not filled with the sizing material. We prefer the finer mesh crinoline with a 28 by 32 thread count. Purchasing crinoline ready cut in the desired widths saves a great deal of time.

The rolling of the bandages is greatly facilitated by having the crinoline cut and rolled into the proper lengths, previous to filling them with plaster. The person rolling the bandages should be extremely careful that a sufficient quantity of plaster is impregnated into the crinoline. We have tried various mechanical gadgets to speed up the work of filling the crinoline with plaster but have found nothing that produces a plaster bandage that will compare to the manually prepared bandage.

Preparation of Bandages

Plaster bandages should be rolled loosely enough to permit the water to penetrate rapidly when they are immersed during the application of a cast. Also, the bandages should be rolled so as to allow for a hollow center of approximately one inch in diameter.

During the entire process of preparation, the utmost care should be exercised to protect the plaster from moisture. The worker should wear rubber gloves not only to protect the hands but also to prevent perspiration of the hand from coming into contact with the plaster.

The room in which the plaster bandages are prepared should be free from leaky pipes, so that the relative humidity may be kept as low as possible. The table should not be located near the windows and during the rainy seasons when the relative humidity of the outdoor atmosphere is high the windows should be kept closed.

Finally, the completed bandages should be carefully wrapped in wax paper. We use what is known as self-sealing wax paper similar in quality to bread wrappers. In wrapping bandages, the wax paper should encircle the bandage about 1½ times and should be wide enough to allow the wrapper to be twisted at both ends, thereby completely sealing the bandage. Prior to our study of plaster problems, tissue paper was used as bandage wrappers. We discovered that not only were bandages inadequately protected from moisture during storage but, in addition, water dripping from the hands of the plaster orderly as he reached into the storage box during the application of the cast ruined a number of bandages.

The finished bandages should be packed in a comparatively air-tight container, preferably in tin boxes with closely fitting covers. The discarded tin food containers from the nutrition department serve this purpose nicely. The tin boxes in which fish are shipped are satisfactory.

Application of the Cast

Finally, the pursuit of the clues to unsatisfactory hospital prepared plaster of paris bandages leads to the examination of the methods used in soaking the bandage while applying the cast. We believe that the plaster cart shown in the illustration has played a major rôle in solving our plaster cast problems.

This cart was constructed when we found that many of our plaster troubles were traced to the method of soaking the bandages. Prior to its use, the immersion pails not only served for soaking the bandages but were convenient receptacles for catching the excess water and plaster squeezed from the bandages. Consequently, after the first few bandages had been applied, the immersion water was contaminated with gypsum crystals, which greatly accelerated the setting time of subsequent bandages and frequently caused a laminated cast.

The construction of this plaster cart is simple and its use expedites the handling of the bandages. The immersion pails fit into the wells at each end of the cart and are filled with water at a temperature of about 100° F. The use of two immersion pails is a definite time-saver since it is seldom necessary to get fresh water during the application of even a large cast. However, the pails should be used alternately so that the temperature of the water in both pails will be about the same.

The immersion process consists of tearing off one end of the paper wrapper and placing the bandage into the pail in a vertical position with the end that has been freed of the wrapper pointing downward. In soaking the bandages in this manner, they seem to become hydrated as rapidly as when the wrapper is completely removed and less plaster is washed out of the bandage during the immersion process. As few bandages as possible should be immersed at any one time since the plaster starts to set the moment it comes into contact with the water.

When bubbles cease arising from the immersed bandages, the hydration process is complete. The excess water is squeezed from the bandages into the waste basin located between the two immersion pails. This basin also serves as a depository for the paper wrappers that are removed after the bandages leave the immersion water.

The surplus water should be removed by cupping the hands over each end of the bandage and twisting the bandage back and forth in quarter turns, applying mild pressure with the thumbs and fingers. This must be done carefully so as not to dislodge an undue amount of plaster from the bandage. The waste basin is important as its use saves the immersion water from being contaminated with an excess amount of gypsum.

Since the plaster cart is mounted on casters and the lower shelf carries a reserve supply of bandages and the other cast material, it is particularly convenient for use in the operating room.

A Good Accelerator

Frequently, the surgeon wishes to accelerate the setting time of the plaster when he is applying a rather small cast. Common salt, ordinarily used for this purpose, tends to make the cast brittle and produces a powdery surface on the cast. Ground gypsum, known technically as terra alba No. 1, is a better accelerator and has no deleterious effect on the cast. The terra alba powder is dusted on the entire surface of the cast and then is rubbed in thoroughly. As soon as the ground gypsum comes into contact with the freshly applied cast, it hastens the process of crystallization. Also, the extra rubbing of the finished cast necessitated by this method produces a smoother and better finished cast.

Occasional audits of the processes outlined for the preparation and use of the plaster of paris bandages are essential to ensure that the surgeon is supplied with bandages of consistently good quality.

ARTHUR H. PERKINS, M.D.

Five Year Plan

DURING the last five years an active program of remodeling, modernizing and rehabilitating has been going on at Norfolk General Hospital, Norfolk, Va. As the hospital is a member of the Community Fund, it is unable to put on any drive for funds. It has only a small endowment.

The work that I shall outline has been provided for by the constant and untiring efforts of our president, who saw the needs and has been able to demonstrate them to his friends and to others able to give substantial gifts to the hospital. His personal solicitation and that of other members of the board of directors have provided all the funds necessary for the work.

Before I discuss the new heating plant, completed in August 1938, and the private room addition, completed in February 1939, I want to mention other projects completed since February 1937 and those contemplated for the future. These include the following:

1. Staff and nurses' dining room converted to modern cafeteria service, with new equipment throughout.
2. Children's ward renovated, central tray room built and 15 private rooms for patients of moderate means added on second floor of center pavilion.
3. A third floor to the center pavilion built; this provides modern laboratory facilities and resident staff quarters.
4. Former laboratory and interns' quarters remodeled and operating room quarters enlarged.
5. Projects No. 3 and 4 completely air conditioned.
6. Additional passenger elevator installed.
7. Physical therapy department, colored employes' locker room, storage room and mattress sterilizer room built on the site of the former heating plant.
8. Fire sprinkler installation throughout the entire group of hospital buildings.
9. A dormitory type of residence on the adjacent property purchased and remodeled for student nurses' home with facilities for an educational department.
10. Former nurses' teaching quarters converted into public ward cubicles.
11. Addition to the maternity pavilion, which will provide modern delivery rooms and nurseries, to be begun in the future.

Before we started our new heating plant project, we had two boilers both of which were secondhand when bought 25 years ago and were limited to 100 lb. pressure. Both, when run at full load, were insufficient for peak loads. One half of our nurses' home was cold even in moderate weather. Our hot water supply was inadequate for both bathing and laundry purposes. The plant was located in the very midst of patients' rooms. The ammonia ice plant was unable to supply our needs and was located alongside the boiler room, directly under the patients' quarters.

The hospital occupies a city block. Across the street at the rear of the property several vacant lots were purchased. We called in a consulting engineer, who made a careful survey of our needs and estimated that the cost of a new heating plant on the new property connected by a pipe tunnel with the present buildings would be about $45,000. The new heating plant contains two 125 h.p. fire tube boilers, equipped with automatic stokers. Space is provided for the addition of a third boiler if it is

This new heating plant, containing two 125 h.p. fire tube boilers, equipped with automatic stokers, was one major improvement. The new structure also houses the ammonia ice making plant.

for Modernization

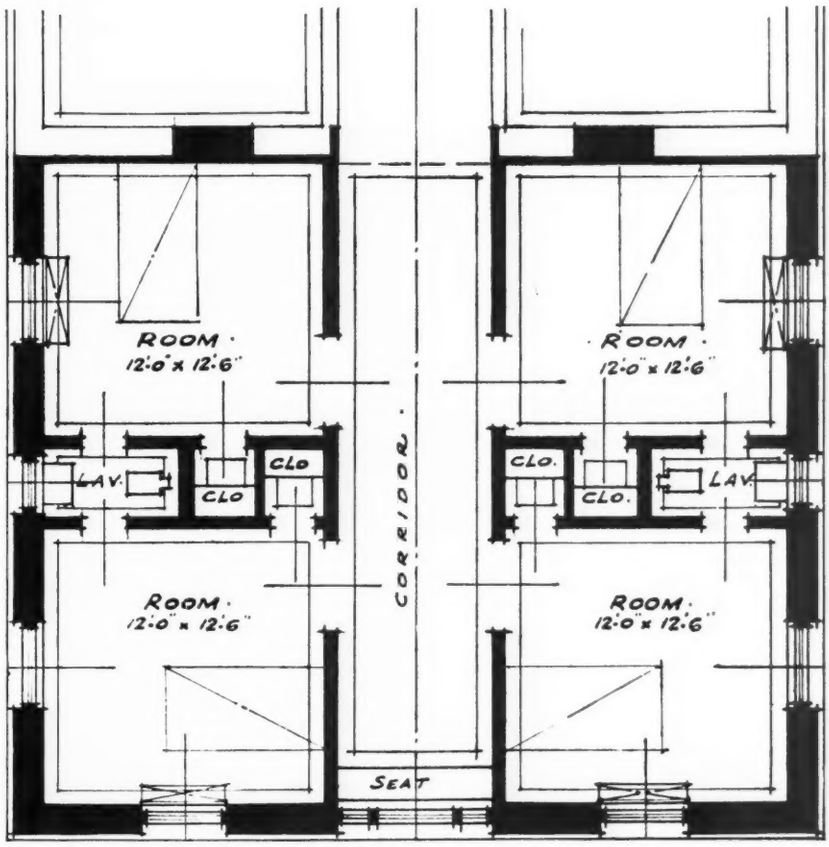
Medical Director
Norfolk (Va.) General Hospital

needed at a future date. The new plant also houses the ammonia ice making plant, which has ample capacity.

A refrigerating unit was installed to take care of the main kitchen walk-in ice boxes, which were previously serviced by the ammonia plant. Locker and shower facilities were provided in the new plant for our maintenance and yard employes. We also have ample storage space for three cars of coal. Concrete results that we have noted since our new heating plant was installed are as follows:

1. As we were able to burn a cheaper coal in our stokers and to burn it more efficiently, we saved $1808 on our coal bill over the previous year, outside temperature being evaluated.
2. One boiler carries our peak load. We have a saving in boiler insurance by using the boilers in rotation over a three months' period, not insuring the boiler that is cold for six months of each year.
3. We have ample steam and hot water at all times.
4. The ice plant has ample capacity and we no longer need fear the danger of ammonia fumes reaching our patients.
5. The smoke nuisance is practically eliminated.
6. The heating plant noise is entirely removed from the patients' quarters.

Our air conditioned private room project was undertaken in order to provide a really modern private room section for those who could afford the best that modern hospital construction can provide. The amount of ground space was limited as the project was an addition to our private pavilion and had to conform to it architecturally. We were able to erect a two story structure of eight rooms with a connecting toilet room between each two room section. This toilet room was essential as the utility room for the floor was a considerable distance away. As 98 per cent of our private patients are surgical and go home before they are able to use a shower or tub bath, we felt it better to put all available space into the patient's room.



Typical floor plan of new private rooms for patients with moderate means.

One of the chief complaints in our hospital rooms was the thinness of the walls and the resultant noise. Insulating material was used in all walls, floors and ceilings of this new section. Acoustical plaster was used for ceilings and rubber tile, on the floors. Rubber roller latches were put on all doors and the door from the corridor to the patient's room has a special type of door check. The flush closets in the toilet rooms are equipped with silent flush valves. They also are the type with lugs so that the bedpans may be washed therein. A radio and telephone are in each room. The furniture is Colonial maple.

This entire unit is air conditioned. Each room is individually controlled by thermostat as to temperature and humidity. Owing to the greater cost of having heating in one room and cooling in another room going on at the same time, we installed a central plant and the temperature is regulated by the circulation of hot water or cooled water as the season demands in the unit in each patient's room.

As the addition was opened a year ago February, we have been through one heating and one cooling season and we have found the system most satisfactory. The cost of this unit for power in the month of August was $13. The water for cooling the compressor comes from driven wells, so we do not have to figure a cost on it.

All these projects have been carried out from funds solicited for capital outlay. All during this period new equipment has been bought and replacement of equipment in all departments has taken place from funds made available, for the most part, from operating income.

The Patient's Bill

Some Credit

THIS month we hear from five small hospitals on the ever present problems of credit and collection —Fernald Laughton Memorial Hospital of Sanford, Fla. (35 beds); Pomona Valley Community Hospital of Pomona, Calif. (75 beds); Mary Greeley Hospital of Ames, Iowa (35 beds); Eldora Memorial Hospital of Eldora, Iowa (16 beds), and the Alpena General Hospital of Alpena, Mich. (74 beds).

All honor is due to the administrators of these hospitals for returning the questionnaires sent out by The MODERN HOSPITAL, for, as we now realize, these questionnaires required more time and thought than should have been demanded of busy hospital executives. We give solemn promise that future questionnaires for the Forum shall not exceed four questions in length.

Is it practicable to extend credit?

No, say Fernald Laughton Memorial Hospital and Eldora Memorial Hospital.

Yes, say our other consultants.

"Credit may be properly extended after proper investigation of the patient's ability to pay and of his credit record," says Pomona Valley Community Hospital.

"Mary Greeley Hospital is particularly fortunate," notes Katharina Diehl, "in being located in a community in which most of the inhabitants are salaried people and well able to take care of the bills that they incur."

The importance of adjusting a routine to suit the individual case is emphasized by A. L. Teffeau of Alpena General Hospital. "There are some patients of excellent financial standing who would be prejudiced by a request for payment in advance; hence, a system that permits the granting of credit when necessary should be set up," he reminds us.

How do you establish a credit rating?

Not one of our five consultant hospitals maintains a credit file. Established local credit bureaus are called on by R. L. Bacon of Pomona Valley Community Hospital, by Katharina Diehl of Mary Greeley Hospital and by M. Mickler, bookkeeper at Fernald Laughton Memorial Hospital. Mr. Mickler feels that the credit bureau is not of much help.

Orville Peterson of Eldora Memorial Hospital and L. M. Teffeau of Alpena General Hospital believe that the medical staff should be called on for credit ratings. Mr. Peterson says: "Although I also use the banks and the local welfare office, the bulk of my credit information can be obtained from the books of the older and well-established physicians." Mr. Teffeau notes: "I believe that if the hospital has their cooperation the doctors can be of inestimable service in establishing credit ratings."

When should the patient pay?

We find that a deposit of one week in advance and the balance at the time of discharge is the most satisfactory arrangement.—*Fernald Laughton Memorial Hospital.*

We require deposit in advance to cover the first week's charges, unless the patient is well known or unless credit arrangements have been made. —*Pomona Valley Community Hospital.*

If the hospitalization period is of short duration, payment is requested at the time of discharge. However, if the patient remains longer than ten days or two weeks a settlement should be made at the end of two weeks, with at least partial payment every two weeks thereafter that the patient stays.—*Mary Greeley Hospital.*

The type of payment depends on the type of patient. Each person must be dealt with differently and the most suitable terms usually can be decided upon when the first contact is made. We usually collect upon discharge.—*Eldora Memorial Hospital.*

We insist, by a council ruling, on the payment of one week in advance, payment in advance for each week the patient is in the hospital and payment in full before the patient leaves. When any small sum is unpaid a close followup is made on collection after the patient is discharged.—*Alpena General Hospital.*

How should financial arrangements be made?

All of our consultants agreed that financial arrangements are best made directly with the patient if his condition permits such discussion or with

A Cheerful Note From Michigan

IN MICHIGAN, according to L. M. Teffeau, there is little need for much credit investigation because patients either can pay—with their own funds or with hospital care insurance —or they are financially unable to pay. In the latter case, they have only to go to the director of the state welfare department in the court house at Alpena to get aid.

"From past experience in other states, and even in Michigan before there was so much welfare aid available," says Mr. Teffeau, "I found that assigning an employe to follow up unpaid accounts when they did accumulate brought very satisfactory results. I never knew of an account that could not be collected if it is properly handled.

"I believe that if the hospitals in a community will get together to establish their policies and will educate the people in the community to pay in advance and to pay before the patient goes home there will be little need to worry about unpaid accounts at the end of the year. It will not take long to educate the public. When money can be obtained from so many different sources, such as loans, insurance and welfare commissions, there is no reason why a hospital should not be able to collect, if the employe who is handling the collections has been properly trained to deal with the public."

and Collection Practices

the relative who is financially responsible for the patient.

At Mary Greeley Hospital, the price of the room that the patient desires is determined on admission but other financial discussions are reserved until a later date.

It's a good idea to let the patient know, if possible, with the help of the doctor, about how long the hospital stay will be, according to Orville Peterson of Eldora Memorial Hospital. The cost of the service the patient is about to receive can then be estimated. "Let patients know that they are buying something for which they are expected to pay," adds Mr. Peterson.

The admitting desk is the key position when it comes to extending credit or arranging for the payment of bills.

Manchester Memorial Hospital, Manchester, Conn.

When and how should bills be presented?

The bill should be submitted directly to the person responsible for payment by the bookkeeper or the person responsible for collection of the account. Such personal contact is most satisfactory.—*Fernald Laughton Memorial Hospital.*

We usually submit a statement to the patient when he leaves.—*Pomona Valley Community Hospital.*

We believe it is best to hand a patient's bill to the patient directly, or to the nearest responsible relative. —*Mary Greeley Hospital.*

Present bills to the patient or a responsible relative before leaving hospital. If the patient is unable to pay, every possible security should be obtained if he is a doubtful risk.—*Eldora Memorial Hospital.*

Judgment must be used in submitting bills; the procedure to be used should be decided when the patient is admitted. If possible, keep the worry away from the patient and see that the bills are submitted to the person responsible. Sending the bill to a patient on his tray can many times spoil his appetite. However, if the arrangements are to send the bill to the patient, then that is the patient's wish; in such a case I would suggest sending the bill just before visiting hours. The patient then has a chance to talk with relatives in regard to the payment of the bill, and the patient is kept from worrying by having someone to talk to during visiting hours.—*Alpena General Hospital.*

How can collections be made effectively without losing good will?

At Fernald Laughton Memorial Hospital "people seem to be more satisfied if they know they are paying for the service they get instead of according to their ability to pay."

The understanding of the patient is also sought at Eldora Memorial Hospital; they talk the situation over with the patient and show that it is cheaper to be ill in the hospital than at home. "We also give them an idea of how much it costs to maintain an institution," says Mr. Peterson.

In the past year the city clerk's office has taken over the task of collecting long outstanding accounts at Mary Greeley Hospital. This is possible since the hospital is a municipal institution; the practice has been a valuable aid in making difficult collections.

Consistency and perseverance are emphasized by Pomona Valley Community Hospital—"Eternal vigilance and regular follow-up"—and by Alpena General Hospital—"Establish a definite policy, hold to it and follow up unpaid accounts."

Mr. Teffeau of Alpena General notes that a good letter with the name of the hospital attorney displayed on the letterhead is most effective in obtaining payment.

What about commercial collection agencies?

There is some dispute as to the desirability of using commercial collection agencies. Are the results satisfactory in terms of finances and good will? No, they say at Fernald Laughton Memorial Hospital. Yes, they say at Pomona Valley Community Hospital; "we do not care about the goodwill of patients whose accounts we give to an agency," remarks Mr. Bacon.

At Mary Greeley Hospital and at Eldora Memorial Hospital such agencies have not been used.

Mr. Teffeau of Alpena General Hospital feels that, while in some cases satisfactory results may be obtained from commercial agencies, the expenditures for such purposes would be better used to cover costs of proper collection procedures by a hospital employe.

We Have a Credit Officer

ANNA K. VOGLER

WHEN they are faced with hospital bills, people may be classified in five groups: the prompt pay, the slow pay, the "can nots," the "do nots" and the "will nots." Credit and collection procedures must be adapted according to the classification of the patient.

The prompt pay patients pay promptly and voluntarily for three reasons: because they have character, because they have pride and because they have the money with which to pay.

The slow pay patients pay slowly and involuntarily for three reasons: because of fear of collectors, because of legal pressure and because they wish to keep the reputation of paying their bills. They may have to be followed by several statements and letters and, finally, the credit officer may be forced to make a personal call.

The "can nots" are mostly honest folk who have no available funds or who lack ready cash. These may be handled by giving them time and getting a definite promise to pay in installments.

The "do nots" may be either careless folk or extravagant folk. They require tactful but firm handling.

Collectors' Fare

The "will nots" can also be divided into two groups, the dead beats and others. The dead beats are simply dishonest and are willing to accept anything for nothing. They are unmoved by higher feelings and ethical ideals. These people must be talked to in their own language; this is the only group on which we bring professional collectors to bear.

Another group of "will nots" is composed of persons who are overwhelmed by debts. The amount of the hospital bill appalls them, as it seems impossible for them to get that much cash at one time. Such people can be handled very satisfactorily by working out a plan of regular payments.

Miss Vogler is superintendent of Riverside Community Hospital, Riverside, Calif. Article condensed from an address given before the Hospital Council of Southern California.

The effectiveness of the credit and collection policy is first determined by the desire and ability of the hospital administrator to operate the institution on as sound a financial basis as conditions permit and in accordance with the principles of good business practice. The assistance of a good credit manager and of efficient and tactful admitting personnel is invaluable in carrying out such a policy.

Admitting Desk Mistakes

It has been said that eight out of ten unpaid accounts are directly the fault of the hospital, as the result of laxity in the admitting office. It is always easier to obtain payment if business-like procedures are in effect. I know of several instances in which the reserve for bad debts was brought down from 8 to 2 per cent after a good business policy had been established.

If this is true, it would seem logical for even the small hospital to have a "credit officer" other than the administrator. At the Riverside Community Hospital, we have proved this to our own satisfaction. In the small hospital there is a multitude of calls on the administrator's time, outside of the business office. Furthermore, the effectiveness of the administrator's community contacts is likely to be more valuable to the hospital if they are not continually associated with "bill collecting."

Since the admitting desk is the hub from which all dealing with the patient radiates, the entire atmosphere must be kindly and inspire confidence. The patient usually enters the hospital against his will and, frequently, in a critical frame of mind. Courteous and understanding treatment will impress upon him the humanitarian spirit of the hospital.

At Riverside Hospital, we first explain to the patient that this is an ownerless nonprofit institution and that for this reason financial plans must be discussed. We explain that terms are weekly in advance and we present an informative leaflet.

The patient or responsible relative is then told that it will be necessary to obtain a dismissal card at the office before being discharged; at that time a refund will be made if the bill is overpaid or payment will be sought if a balance is due. If the patient is unable to make the routine financial arrangements, the credit manager is called in to make definite plans for down payment and regular weekly or monthly payments to fit the patient's budget.

At the time the other forms and routines of admission are taken care of, explanation of hospital regulations and privileges is given. The patient is informed that there may be extra charges for such services as x-ray, which are ordered by the physician and which are not included in the regular hospital service.

The credit manager has full authority to adjust rates to meet the individual's ability to handle his hospital account. One of the advantages of the plan for weekly payments in advance is that it tends to eliminate to a considerable extent any dispute that might arise if payment were made in full at the time of discharge.

Some Leniency Justifiable

The urgency of the patient's need for care must enter into the credit officer's decisions. In emergencies the responsible relative should be conferred with as soon as the patient is settled or, in surgical cases, as soon as the patient has been safely returned from the operating room.

Naturally, it is often difficult to establish clearly a patient's ability to pay. His credit rating should be checked with credit bureaus and through all other avenues open to a good credit manager; such checking will eliminate most chiselers. However, no hard and fast rules can be set down; any endeavor to standardize human beings is sheerest folly. So far we have been justified in following a somewhat lenient policy.

Volunteers Control Visitors

JANE KRICHBAUM

ONE of the biggest problems of hospital management is the proper control of visitors. The solution of the problem at Aultman Hospital, Canton, Ohio, was effected through the aid and whole-hearted cooperation of the Junior League of Canton. After three years, I am able to record a successful working plan, completely controlled by volunteers with the cooperation of the entire hospital personnel.

Two classes of visitors come to the hospital to see patients: (1) those near and dear to the patient (they require all consideration) and (2) casual visitors who often stay too long and come when patients need rest, quiet and freedom from the effort required to visit.

Our problem, therefore, involved several considerations. Who should visit patients in the hospital? When might they come and how long should they be permitted to stay? What rules were needed to control visiting and how should they be enforced? The need for control was evident. The budget of the hospital did not permit the employment of workers to handle visitors and it was too big a job for the hospital staff as it stood.

The Junior League of Canton was informed of the problem and its interest led to the formation of a volunteer system under the direction of Hulda Fleer, superintendent of the hospital.

The girls are assigned to duty in the hospital and are considered by the staff to be semiprofessional workers. Volunteers are carefully chosen and are deeply interested in the work. The management has no hesitancy in showing the volunteers the "inner workings" of a hospital. The more knowledge a worker has of her job the better is her work. One point that has been weak in the setup of volunteer services in many hospitals is the lack of confidence in the worker; reluctance of the hospital staff to put faith and trust in these workers means the downfall of the whole system.

Miss Krichbaum is a member of the Junior League of Canton, Ohio.

Manchester Memorial Hospital, Manchester, Conn.

Visitors are not permitted in wards or private rooms at meal time.

A desk has been placed in the lobby of Aultman Hospital for the use of the two volunteer hostesses who are on duty during each visiting period. The lobby of the hospital itself is a place of dignity, quiet and beauty. The administrative offices are entirely separate and there is no confusion or bustling about in the room through which the visitor enters the hospital. This dignity impresses the visitor.

Hostesses are supplied with a file of visiting cards, which contains two cards for each ward and semiprivate room patient and three cards for patients having private rooms. When the supply of cards for a patient has been exhausted, the hostess knows that the patient has his quota of visitors and additional persons are asked to wait in the lobby until a card is returned to the file. Obviously, the files are checked for missing cards after each visiting period.

Hostesses also distribute mail and flowers to the hospital patients. Each hostess learns the rules governing

visiting and enforces them. Visiting hours in the wards and semiprivate rooms are from 2 to 4 and from 7 until 8:30 p.m. Visiting hours for the children's division are from 2:30 until 3:30 in the afternoon and from 6:30 until 7:30 in the evening. Only parents are permitted to visit in this department. The control of visitors in the pediatric section must be closely controlled because these patients are highly susceptible to infection. Special permission may, on occasion, be given by the superintendent to other near relatives.

Private room patients are permitted visitors from 10 a.m. until 4 p.m. and from 6 until 8:30 p.m. These regulations are strictly enforced. Patients need rest and quiet. Even in convalescence the patient must not be fatigued. Visitors must not be permitted to come to the sickroom during treatment periods.

No visitors are permitted in the maternity division while babies are with the mothers. During the first three days after the birth of the baby, maternity patients are permitted to see only their own parents, their husband's parents and their husband. While patients are in the lying-in room, only the husband and mother are permitted to see them.

Children under 14 years of age are not admitted in any division of the hospital at any time. No visitors are permitted to visit the operating rooms.

Long Visits Discouraged

Hostesses encourage visitors to stay a short time only. Many visitors going to the room of the seriously ill, members of the family and close friends, are worried about the condition of the patient and tend to reflect that feeling to the patient. The easy way is to exclude visitors but many times the patient is benefited by seeing near and dear ones. A short visit is, therefore, a tonic to the patient and the calm and dignified attitude with which the hostess receives the visitor helps to characterize the latter's visit to the patient.

Visitors are not permitted at mealtime. Visitors having colds are not allowed to see patients at any time and are not permitted to have a visitor's card. Lawyers are not permitted to see a patient on business without permission from the superintendent's office. No visitors are permitted without special permission to the isolation department.

In this volunteer work the hostess finds that hospital service to a greater degree than other volunteer activities requires a meticulous adherence to certain standards and prescribed regulations.

It is necessary for the girls who are to be volunteer hostesses to have some training so that they will know how to meet the various situations that arise in their work. At Aultman hostesses are trained partly by formal instruction and partly by experience. A new worker meets with other new workers at the hospital and the superintendent holds a conference with them, instructing them as to their duties and the problems they are likely to meet.

Skit as Part of Training

As a part of last year's training program a number of hospital employes performed a clever little skit in which, representing all the possible types of visitors, they came to the hostess desk and asked every conceivable sort of question. Miss Fleer explained the workings of the hospital to the girls, took them on a conducted tour of the buildings and told the inspiring story of their part in helping people to get well.

After this formal instruction, these girls are ready for duty and are assigned to the hospital one afternoon or one evening visiting period each week for three months. Usually a new worker is placed with an experienced worker for her first assignment. Before many months have passed this new hostess feels at ease at her desk.

Diplomacy, tact, dignity, thoughtfulness and judgment are necessary. Frankness and courteous attention must be employed. No visitor must be antagonized. He comes feeling justified and it is the job of the hostess to let him know what is best for the patient. The impression the hostess gives to the visitor, the visitor carries on to the patient. The hostess realizes that she is a part of the lay public and by her volunteer service has become a member of a semiprofessional group. This position is a unique one in its possibilities for interpretation of the hospital to the community as to the work carried on and the advantages offered. The volunteer brings a fresh viewpoint to the hospital and helps regular staff workers to see themselves and their work in relation to the public.

The merits of the plan are several. Doctors may leave orders for their patients regarding visitors and may have confidence that the orders will be carried out. Nurses are relieved of the added duty of checking patients' rooms for too many visitors. If they suspect that there are more visitors than are permitted in a room the phone at the hostess desk can be rung and one of the girls on duty will check the situation.

Patients benefit from the plan in that they are relieved from the necessity of seeing a great many casual visitors who drop in during their stay at the hospital. Frequently, the patient himself asks that the hostesses restrict visitors to certain relatives and friends. A patient cannot hope for a speedy recovery if he is hounded and tired by a continuous stream of people coming to see him. Rest and quiet are two well-known factors in the recovery and the convalescence of the sick.

Satisfaction to Volunteer

I am convinced that there is a definite field for volunteers in hospital work. The volunteers themselves agree that they have gained from the experience a sense of accomplishment and true satisfaction that cannot be measured in the number of hours given to this service.

The volunteer work must be of such a nature that the worker feels that there is good being accomplished in the doing of the task. Paid workers have the compensation of salary and of advancement of their personal career to make their work seem worthwhile even if the work itself is not satisfying. The volunteer worker has only one reward for her efforts, the satisfaction of doing a task that is necessary and productive of good. This work at Aultman Hospital has been all of that for our organization and the members accept their turn at duty gladly and with pleasure. This plan could be easily adapted to any general hospital of the size of Aultman Hospital.

A Tumor Clinic Is Feasible

Even in Smaller Communities

GORDON M. MEADE, M.D., and
SAMUEL J. STABINS, M.D.

WITHIN recent years there has developed a growing tendency to establish institutes and hospitals devoted exclusively to the treatment of malignant diseases. The value of such institutions for large centers of population in which much clinical material is at hand and in which adequate funds are available for their erection and continued maintenance is undisputed. For the majority of communities, however, such establishments are financially impossible. Moreover, they are unwarranted on the basis of the need for such specialized services and in view of the actual and potential facilities for such work already provided in existing hospitals.

Need Not Be Elaborate

There is no doubt of the value of the concentration of diagnostic skill and therapeutic facilities in any community in the attack upon an unsolved medical problem such as malignant disease. How best to concentrate forces for such an assault is equally an administrative and a medical problem.

We believe that in any community in which reasonably up-to-date diagnostic and therapeutic hospital facilities are available, along with adept professional knowledge, the problem of providing diagnosis and treatment of malignant disease can, in most instances, be readily handled by the establishment of tumor clinics in the general hospitals. Additional expenditure of any considerable sums or the expansion of physical facilities is unnecessary.

The organization and arrangement of such a clinic need not be elaborate in order to do worth-while and satisfactory work. The clinic that we shall describe is not held up as an ideal but merely as a working model.

A basic consideration in setting up such a clinic is proper and definite fixation of responsibility and authority by making the clinic an integral part of one of the clinical departments, most logically surgery, and by appointing a clinic chief in full charge. Such an arrangement is essential to ensure smooth functioning, especially since other departments, such as radiology, may be concerned in the conduct of the clinic. This thought leads us directly to the problem of clinic personnel upon whose ability and interest the success of the clinic will stand or fall.

It goes almost without saying that there should be a clinic chief. Such an officer should be trained in general surgery and in pathology and should have special knowledge of tumor diagnosis and treatment. At the present time such men are not too scarce to preclude the establishment of such clinics even in many of the smaller communities. Such a chief should be supplied with one or more assistants depending on the size of the clinic. In all cases a sufficiently large professional staff should be provided to afford consistent year round coverage of the clinic. These men need not have special training in tumor work as a prerequisite but should be trained in general surgery and pathology. If special attention is to be given to gynecological tumors a staff member with special knowledge in this field should be included. Under a competent chief, knowledge and skill in tumor diagnosis and treatment will rapidly develop.

No set rules regarding remuneration of the professional staff of such a clinic can be laid down. Each instance must be governed by local circumstances and practice. In a clinic of any considerable size it is probable that at least the clinic chief merits remuneration.

In addition to the professional staff already mentioned, the services of someone experienced in surgical pathology must be available for microscopic diagnosis. It is quite possible that this work can be adequately cared for by members of the attending staff of the clinic who are trained in such work. When a hospital pathologist is employed it is possible to effect another arrangement that provides experience for a member of the resident staff by appointing a resident as the surgical pathologist to do this work and by requiring that his diagnoses be checked by the staff pathologist. Under any arrangement provision for the preparation of the necessary slides can be made in the hospital laboratories.

If therapeutic work is to be done the assistance of someone trained in x-ray therapy must be obtained. Usually this can be supplied by the existing radiology staff. Alternatively, but less preferably, services can be supplied by some other member of the hospital's nonresident staff.

Follow-Up Work Essential

An almost indispensable part of any such clinic is a social service worker for follow-up work. The duties of such a worker will be detailed later. Finally, clerical help will be necessary depending upon the volume of work.

The physical facilities required for a tumor clinic are relatively simple. The location is immaterial so long as adequate natural light and space are provided. For a clinic meeting four times weekly and handling an average of eight patients per session, a room approximately 17 by 20 feet is adequate, although greater area can be used without waste. Simple, open front cubicle examining rooms with seating arrangements and draw curtains are sufficient. Waiting room space may be necessary. Space for

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small filing cabinets, desks for secretary, social service worker and clinic chief should be allowed.

It is desirable, but not essential, that minor operative facilities be provided at one end of the clinic for obtaining biopsies. If this is not possible, provision should be made to obtain biopsies in the regular operating rooms. Much time will be saved if the clinic is located near the radiology department. By this arrangement members of the radiology department can readily visit the clinic for consultation and patients can be taken directly from the clinic to the radiology department for therapy without having to dress and undress a second time. It leads also to close cooperation between the clinic staff and the radiology staff.

X-Ray and Radium Needed

A well-run clinic should have at least one high voltage x-ray machine of 200 kv. or more. In addition, there should be several hundred milligrams of radium available. It is not necessary, and certainly not practical, to equip every clinic with several grams of radium.

The problem of the source of patients will be locally variable and will require varying solutions. In general, patients will be admitted to the clinic by referral from the out-patient department, from the hospital after discharge for after-care and by referral from staff members. An ideal to be striven for is that all clinic patients have a complete medical work-up before being seen in the clinic, or soon afterward. Admittedly, this will not always be practical. For ultimate disposal patients will be recorded as discharged to their own care, to their own physician, to the hospital, to other institutions, or as "deceased."

The services of a social service worker in the tumor clinic are of cardinal importance. She should be in attendance at each session of the clinic and should keep a close check on the attendance of all patients. It becomes her duty to make the arrangements when hospital admission or home bed care becomes necessary. She keeps her own record of appointments and checks immediately with the patient on each unkept appointment. She is assisted in her work by a secretary who makes all appointments and keeps the follow-up files in order. The latter duty is time consuming but upon proper follow-up, more than on any other one factor, depends the ultimate clinical success of a tumor clinic. It is possible that in some cases satisfactory volunteer services can be obtained to do the work of both these employes.

At each visit the patient's card is filed under the date of his next visit. If he fails to appear during the month under which the next visit is filed, the secretary checks with the social service worker who immediately investigates. The card is not moved forward until a satisfactory follow-up report has been obtained. Similarly, after discharge from the clinic, patients are checked at periods determined for each individual by the clinic chief. In this fashion, end results are determined. We have found that confusion, error and grief are avoided if the appointment and follow-up records, cross-files and other pertinent data are divorced from the hospital's central record room and are kept in the tumor clinic. Patients' clinical records should be filed, however, in the central record room and sent to the tumor clinic when needed. The exact methods for handling clinical records will, of course, depend on the type of record system used.

Two Ways of Cataloging

For reference and research purposes patients should be cataloged both alphabetically by name and anatomically by body part. From the anatomical catalog one can tell at a moment's notice the number of cases involving a particular organ that have gone through the clinic. In the alphabetic file patients are subclassified as active or inactive. Patients are classed as inactive when they have been discharged from the clinic, transferred to their own physician or to another hospital. Names of deceased patients are filed alphabetically in a separate file. In the anatomical file no distinction is made as to activity or inactivity. A desirable third file is classification by tumor types.

As a corollary of the diagnostic and therapeutic functions of the tumor clinic there is always the teaching function. In all hospitals, regardless of whether or not they are affiliated with a university, the presence of a tumor clinic affords concentration of valuable teaching material for both resident and nonresident staffs. Opportunity should be given for members of the resident staff to spend a definite period of time observing and assisting in the clinic. This is particularly true of men on the surgical service. In institutions with university affiliations students in small groups should rotate through the clinic for a month or six weeks seeing all the tumor patients, taking histories and making supervised examinations and diagnoses. In addition, they should attend all tumor rounds on patients in the hospital. Thus, patients are seen in all stages of treatment, before operation, after operation, during x-ray treatment and in different periods of follow-up.

Such a clinic can contribute measurably to the community welfare and can add to the prestige and caliber of the hospital's service.

Accounting for Sponges

THE committee on sponge accounting of the Inter Hospital Committee of Duluth, Minn., has drawn up the following procedures for accounting for sponges used in the operating room:

1. The sponge count is to be taken at every operation and on every obstetrical case except hemorrhoids, fistulae, nonpregnant uteri and Bartholin abscess.

2. A small harness ring shall be attached to the string on all laparotomy pads.

3. There has been a tendency among certain surgeons to use tonsil sponges in laparotomies. The danger of using sponges of this size is great. It is, therefore, recommended that they be denied in laparotomies and that nothing smaller than the small stick sponge be used.

4. No surgeon, intern or assistant shall remove the sponge from the forceps when using stick sponges. The sponge shall be removed only by the nurse and at a point remote from the operating table.

5. In all cases where no sponge count is taken a nurse shall so inform the doctor before completion of the operation. She shall also notify him when the sponge count is taken.

6. It is recommended that the surgeon in his dictation make note that the sponge count has been reported correct, if that is so.

School Comes to the Patient

C. L. MATHEISON

A STUDY has been made of hospital schools in the United States offering academic training to patients. The study included the need for such schools, the historical development and growth of the movement for these schools, existing legislative provisions, present practices and an appraisal of the practices found to exist.

On the basis of present membership in hospital schools and on other factors in certain areas it is estimated that there are probably 75,000 available children for hospital schools in the United States.

The first hospital school was established in 1861 in New York City by Dr. James Knight as a private undertaking. Two years later the efforts of Doctor Knight were combined with those of the New York Society for Ruptured and Crippled Children and the Hospital of the Society for Ruptured and Crippled Children was established. This hospital school has continued since that time.

The second hospital school, also a private undertaking, was started by Dr. Lucius Willard Baker at Baldwinsville, Mass., in 1882, at the institution now known as "The Hospital Cottages for Children." A hospital school has continued here since 1882.

Four other hospital schools were started previous to 1900. Today it is estimated there are from 300 to 400 such schools in the United States, 162 of which contributed to this study.

The responsibility of the state for the establishment and support of these schools has been slow in developing. Legislative provisions pertaining to hospital schools are found in 17 states. In most of these, hospital schools are either required or authorized. In some, hospital schools are not specifically mentioned, but the statutes provide for special schools or classes that include hospital schools.

This article is a digest of "Hospital Schools in the United States" by C. L. Matheison, U. S. Office of Education, Bulletin No. 17, 1938. Government Printing Office, Washington, D. C., 1939.

To serve all the children the state must provide instruction to young hospital patients. Seventeen states have laws authorizing hospital schools. In the other states private initiative is attempting to do the work

Many variations in present practices in hospital schools were found from the replies to the questionnaire used in the study. The replies were received from 162 hospital schools located in 124 cities distributed over 33 states. In many places boards of education have established hospital schools without specific legislative provisions under broad general provisions of the school laws giving them power to establish any type of school considered necessary. In other places no such schools have been established even though state laws specifically require them.

One hundred fifty of the 162 hospital schools reported on the instruction by grades offered in their schools. Of these, 146 reported primary grades; 143, intermediate grades; 149, grammar grades; 73, high school work, and 14, work beyond the high school.

The 157 hospital schools that reported the number of teachers employed have 438 teachers. These teachers, for the most part, have teaching certificates and many have additional special training.

The income of the 57 hospital schools that reported income was $218,750.26. Of this amount 50.8 per cent came from state sources; 24.5 per cent came from the local boards of education; 17.6 per cent came from hospital budgets, and the remainder, from miscellaneous sources.

Eighty-one hospital schools reported expenditures totaling $297,804.09, 92.4 per cent of which was for teachers' salaries. In these 81 schools, the average teacher's salary was $1,368.75 and the yearly cost per pupil in average enrollment was $69.47.

The hospital school has three types of values: therapeutic, vocational and general educational. Keeping the child's mind occupied and away from his misfortune is an aid in physical recovery. Instruction assists the patient to select a vocation in keeping with his possible future physical condition and offers possibilities for training in that vocation. It also bridges the gap in school progress caused by temporary hospitalization, enabling the pupil to keep up to grade; for long-time patients it gives the child educational opportunities that would be otherwise impossible. The results of standardized tests indicate that the progress made by pupils in the hospital school equals the normal grade progress in the regular school.

Too many hospital schools operate without the benefit of supervision of local or state educational authorities. In some cases, the existence of hospital schools is unknown to the state educational authorities. State supervision of hospital schools would be conducive to a development of desirable standards.

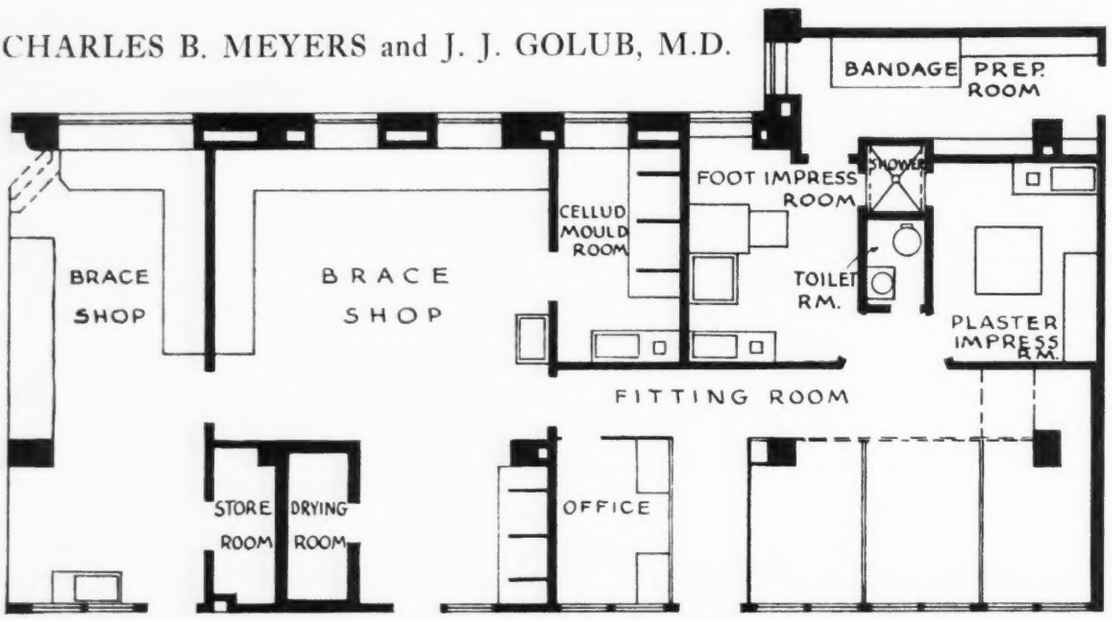
Hospital school teachers receive salaries the average of which, as reported, compares favorably with those of regular public school teachers. However, many do not work under contract or share in pension or tenure benefits as do public school teachers, owing to the fact that they are not employed by boards of education.

Some hospitals offer only bedside instruction. Because of its socializing influence on the child, classroom instruction is preferable to bedside teaching for ambulatory patients.

Many hospital schools appear to be well provided with educational equipment and supplies. In other instances, however, proper equipment and adequate supplies are seriously lacking.

New Building Doubles Space of

CHARLES B. MEYERS and J. J. GOLUB, M.D.



THROUGH the generosity of the public, the Hospital for Joint Diseases, New York City, recently opened its new out-patient building—the Leo L. Doblin Memorial. Its spacious areas and generous equipment will permit treatment of 1500 patients a day, or 400,000 visits a year—twice the volume of service that was rendered in the old building.

The exterior design of the building is of contemporary functional architecture, of steel and brick construction with reenforced cinder concrete floor and roof arches. It is four stories high, 200 feet long, with a frontage of 100 feet on one street and 58 feet on another. The foundation and steel frame were designed to permit future construction of four additional floors. The building is served by one freight and two passenger elevators.

The interior walls and both the fixed and portable equipment are finished in harmonizing and blended colors. The floors in the corridors are of terrazzo and those in the clinics are of mastic tile. Other floor surfaces are of nonabsorbent material. The ceilings of the corridors, lobby and all waiting spaces are acoustically treated.

Above: Floor plan of one end of the basement showing the brace shop, which includes a steel shop, leather shop, drying room, plaster bandage room and cubicles for measuring and fitting orthopedic appliances. Right: The room in which celluloid corsets are made.

Mr. Meyers is the New York architect who designed the new clinic. Doctor Golub is superintendent of the Hospital for Joint Diseases, New York, and consultant on the building.

Out-Patient Clinic

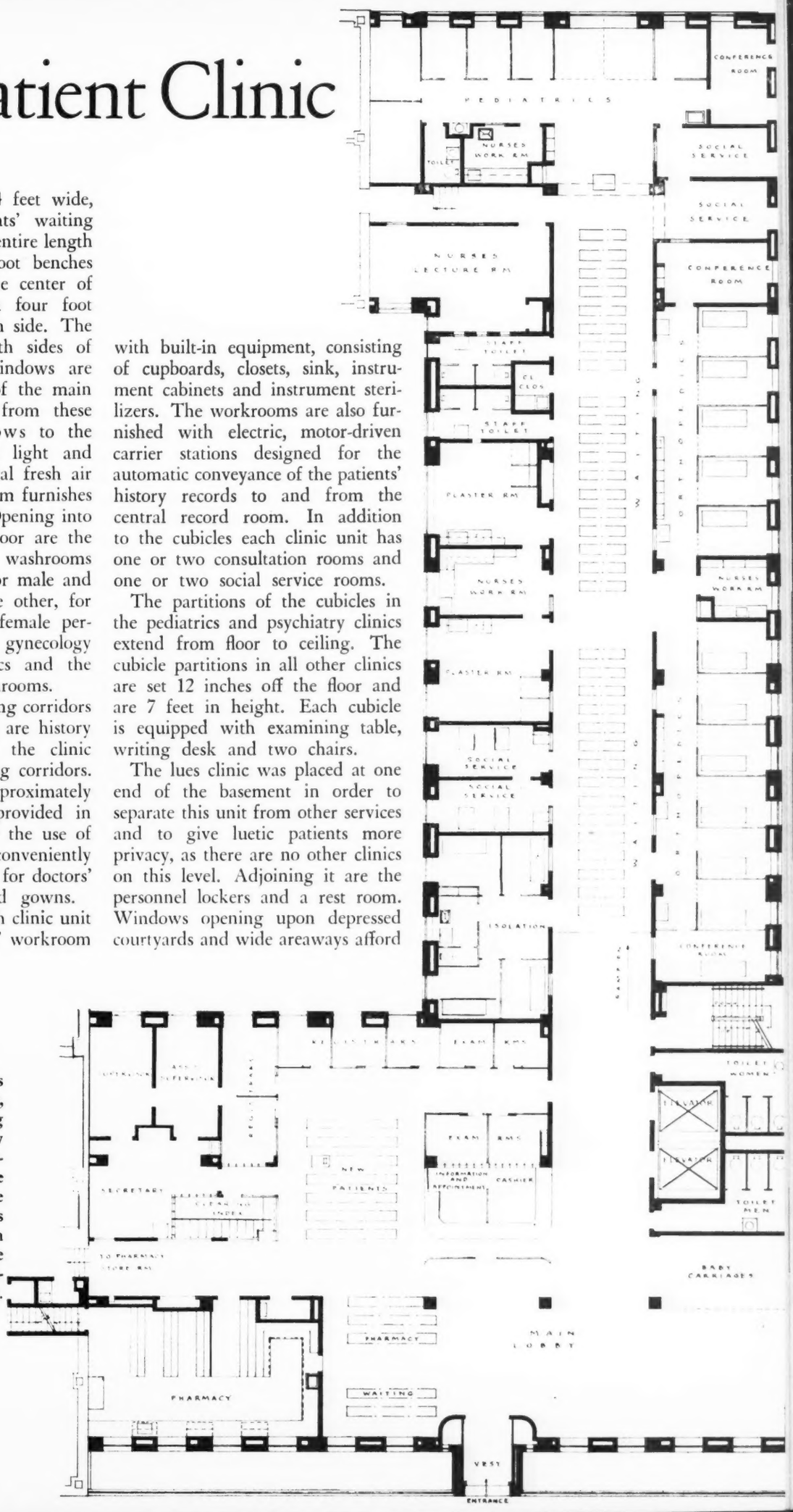
A central corridor, 14 feet wide, which serves as patients' waiting space, runs through the entire length of the building. Six foot benches have been placed in the center of the corridor, leaving a four foot walking passage on each side. The clinic units are on both sides of the corridor. Large windows are provided at each end of the main corridors, and alcoves from these corridors, with windows to the exterior, afford natural light and ventilation. A mechanical fresh air supply and exhaust system furnishes additional ventilation. Opening into the corridors on each floor are the clinics and two sets of washrooms and toilets; one set is for male and female patients, and the other, for doctors and male and female personnel. The pediatrics, gynecology and hydrotherapy clinics and the isolation unit have washrooms.

Parallel with the waiting corridors and opening into them, are history corridors that separate the clinic cubicles from the waiting corridors. One wash basin for approximately every two cubicles is provided in the history corridors for the use of doctors and nurses. In conveniently located places are closets for doctors' and nurses' clothes and gowns.

At the entrance of each clinic unit there is a central nurses' workroom with built-in equipment, consisting of cupboards, closets, sink, instrument cabinets and instrument sterilizers. The workrooms are also furnished with electric, motor-driven carrier stations designed for the automatic conveyance of the patients' history records to and from the central record room. In addition to the cubicles each clinic unit has one or two consultation rooms and one or two social service rooms.

The partitions of the cubicles in the pediatrics and psychiatry clinics extend from floor to ceiling. The cubicle partitions in all other clinics are set 12 inches off the floor and are 7 feet in height. Each cubicle is equipped with examining table, writing desk and two chairs.

The lues clinic was placed at one end of the basement in order to separate this unit from other services and to give luetic patients more privacy, as there are no other clinics on this level. Adjoining it are the personnel lockers and a rest room. Windows opening upon depressed courtyards and wide areaways afford



Right: The first floor is divided by a wide corridor, which serves as a waiting room for the patients. New patients must pass the clearing desk where all the names are registered. The pediatrics and orthopedics clinics are also located on the first floor. Left: The clinic renders service to patients of all ages and sizes.

adequate natural light and ample ventilation.

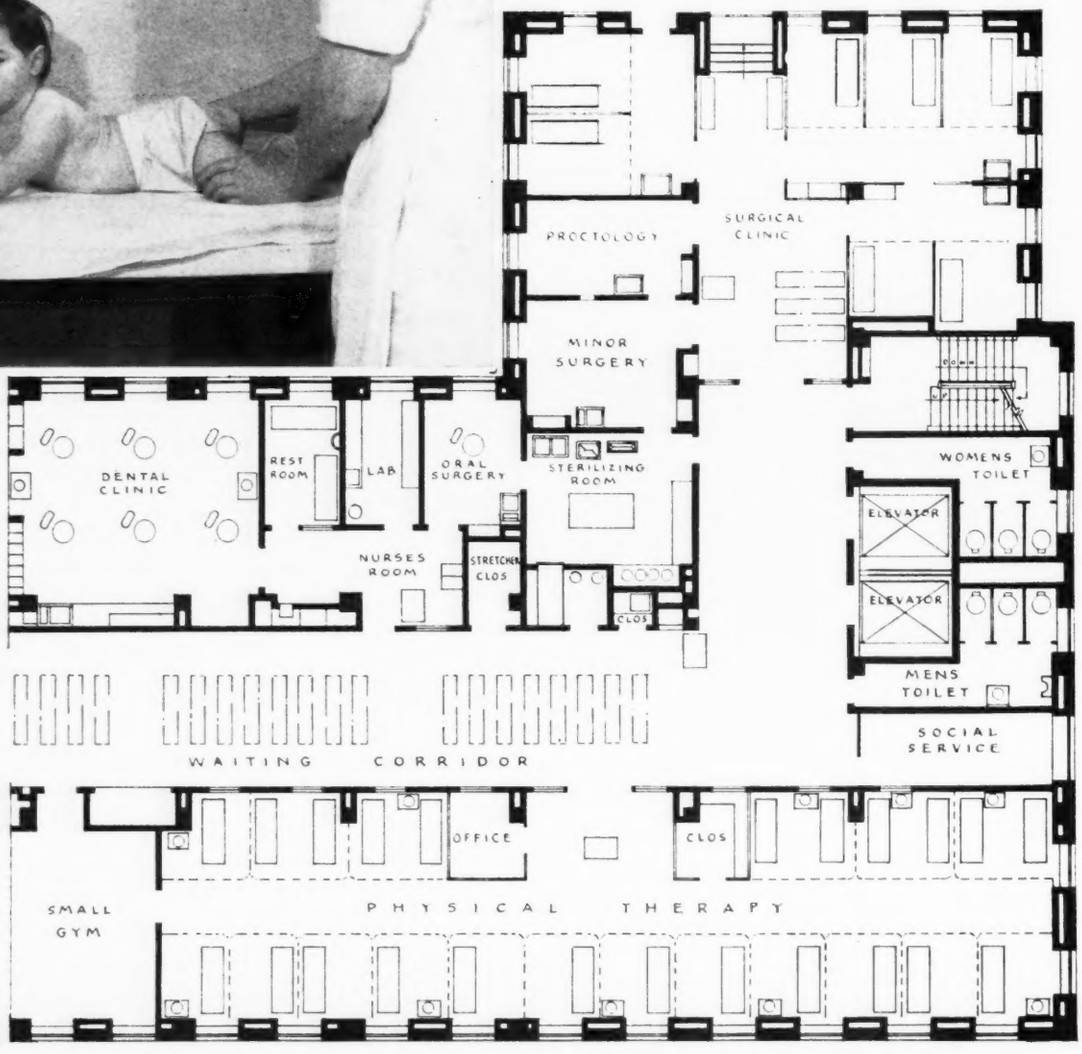
South of the main corridor is the specially designed and equipped bracemaking department, consisting of a steel shop, a leather shop, a plaster-of-paris drying oven, a room for the manufacture of celluloid corsets, two plaster impression rooms, one plaster bandage room, three cubicles for measuring and fitting braces and orthopedic appliances and an office. At the other end, the basement is devoted to central hospital facilities, such as a chapel, morgue, necropsy and dissection rooms, storekeeper's office and storerooms, carpenter and paint shops. These services are accessible through a separate driveway.

The main entrance on the first floor leads into the waiting lobby. The floor of the entrance foyer and lobby is at the sidewalk level, which eliminates steps and facilitates the entrance of physically handicapped patients.

The entrance, the lobby and the administrative facilities were planned for orderly traffic, permitting the separation of patients into new and old patient groups. Facing the main entrance are the appointment desk, information and registration counter and the cashier's booth.

This area has two noteworthy features. One is the telautograph machine on which the patient's history number is automatically transmitted to the central record room. When the number has been received, the charts are sent to the clinic that the patient is attending. The other outstanding item of equipment is a specially designed cash register machine that records important data for statistical purposes. These include the day's serial number; the sex of the patient; the financial status *i.e.* free, part-pay or pay, as well as the amount paid, and the name of the clinic to which the patient has been referred.

A special area adjacent to the main waiting room is provided for the reception of new patients. It includes a waiting room and five completely enclosed cubicles in which patients can be privately interviewed regard-

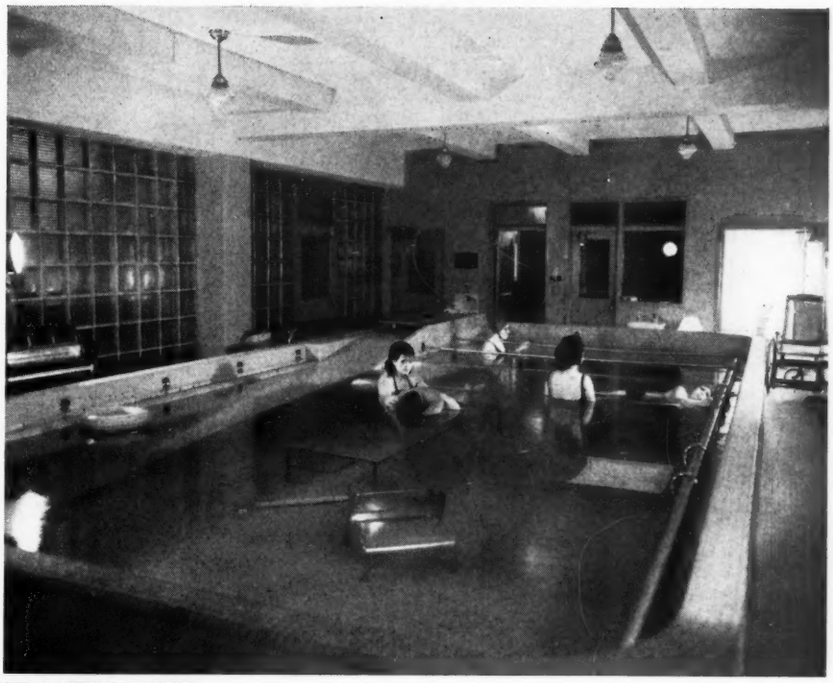


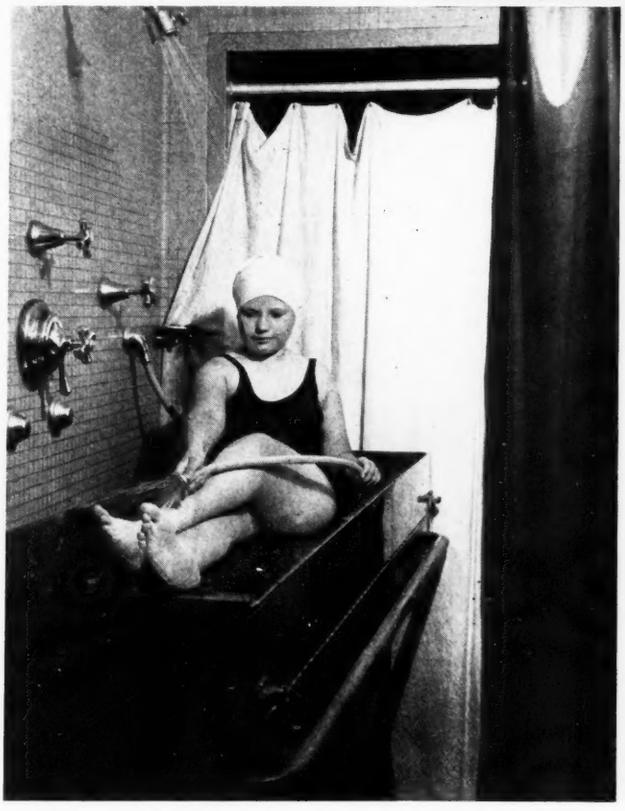
Above: Light therapy treatment is something to be taken seriously. Right: The physical therapy department on the third floor includes facilities for diathermy treatment, corrective exercises, heliotherapy and electrotherapy. The dental, surgical and proctology clinics are also on this floor.

ing their social and economic status, as well as four examining cubicles for the admitting physicians. Adjoining this area are three offices, for the supervisor, assistant supervisor and clerical staff. Before a new patient can reach the waiting room, he must pass and stop at the room for central name clearance of new patients who are seeking admission.

The pharmacy is also on this floor, and in front of it benches are provided for patients who are waiting for prescriptions to be compounded.

Off the main corridor there is an isolation unit of four cubicles and a utility room completely equipped with a sterilizer, wash basin and toilet facilities. Patients who are suspected of having contagious diseases are isolated here until they have been examined.





Above: Patients receiving treatment in the 25 foot tank in the hydrotherapy department. Other services on this floor include fever therapy, continuous flow baths and colonic irrigation. Left: The young lady seems to be enjoying the treatment she is giving herself on the portable hydrotherapy table.

The orthopedic and pediatric clinics are also located on the first floor, which is at sidewalk level, to permit crippled patients and children to get to their clinics without using stairs or elevators.

The second floor contains the central record room, the medical library and a large room for 10 medical stenographers, in addition to eye, ear, nose and throat, internal medicine, neuropsychiatry, gynecology and urology clinics. The apparatus for the automatic record carrier and the telautograph is in the central record room. From this point, the history records of patients are forwarded to the respective clinics.

The physical therapy department, the dental clinic and the surgery and proctology clinic are located on the third floor. The cubicles in the physical therapy department are curtained to permit the interchange of apparatus.

The fourth floor, which was named after Henry Kaufmann, a generous donor, is devoted to hydrotherapy and contains a therapeutic pool 25 feet by 12 feet, which is electrically illuminated under water. The pool is centrally placed, so that workers can move around it freely. It has a specially constructed ramp for sliding patients into the water. The floor is gradually sloped from a depth of two feet at one end to four feet at the other. The purification of the water is accomplished by means of chorinating apparatus that automatically maintains a chlorine level of from three tenths to five tenths per cent. A tank for underwater treatment of younger children is also provided. To one side of the therapeutic pool are dressing rooms, shower, office, sun rest rooms and washing and toilet facilities.

This floor also contains other hydrotherapy services, including fever therapy with water and electric machines, electric cabinets, Scotch douche, continuous flow baths, mud pack apparatus, foam baths, colonic irrigation equipment, leg and arm whirlpools and a rest room.

The building contains 714,000 cubic feet and was constructed at a cost of $560,000. The land cost $150,000, bringing the total cost to $710,000. The average cost of construction per cubic foot (excluding the land) was 78 cents.

Accrediting in Theory

NELLIE X. HAWKINSON, R.N.

IN EMBARKING on an accrediting program, the National League of Nursing Education was not unaware of the fact that there are weaknesses as well as strengths in accrediting devices and that, in certain quarters, accrediting practices are "under fire" at the present time. But it knew also that in a number of educational fields outstanding improvements have been achieved through the use of this procedure and that even those who are most critical of accrediting activities grant that in some instances its use has helped to bring order out of chaos.

It would no doubt be an exaggeration to say that nursing education is today in a state of chaos but I believe it is true that there is less uniformity in the education of nurses than in the education of almost any other professional group.

Accrediting One Solution

In a professional field such as ours that condition should not exist. The consuming public has a right to assume that the title "graduate nurse" signifies professional competence, and it is equally true that the term "approved" or "accredited" applied to a nursing school should signify to the young woman who is interested in preparing for nursing that the school offers a creditable program of study and that she will be adequately prepared for the practice of nursing. The National League of Nursing Education has chosen accrediting as one possible way to the solution of these educational problems.

A conference was held in New York City in March 1936 for the purpose of discussing accrediting procedures and the advisability of making use of these in nursing education. The fields of hospital administration, medicine, public health and education were represented at the conference, as were the three national nursing organizations and the Association of Collegiate Schools of Nursing. Several significant conclusions are recorded in the minutes of this meeting. These were later adopted by the league and several of them were incorporated in its accrediting procedure. The conclusions reached are as follows:

1. The need for an accrediting plan appears to be particularly urgent at this time.
2. It is an accepted principle that the accrediting of schools within a profession is essentially a function of the profession itself and it would seem that the league is the logical body to assume responsibility for initiating such a plan.
3. In developing an accrediting plan, classifying or rating of schools should be avoided.
4. A national scheme or plan that provides for national (not regional) standards is the most desirable for a professional group.
5. The standards selected in the beginning should be reasonable and should not place too great emphasis on fixed quantitative requirements.
6. An institution's eligibility for accreditation should not be determined on the basis of data obtained from reports alone; visitation of the institution should also be required.
7. The primary purpose of the whole movement should be to help schools of nursing to improve, and plans of organization and accrediting procedures should be developed with this objective in mind.

Special Body Appointed

This conference led to the appointment of a special committee on accrediting which was given the responsibility of preparing a report with recommendations to be presented to the membership of the league at the 1936 annual convention.

Although the league took the initiative in getting this project under way, it recognized that many other groups are concerned with improvement in nursing education and provided for their participation in seting up its program. The committee on accrediting, which is a standing committee of the league, has a membership of 17, four of whom are ex officio members. These members represent different geographic areas of the country and different types of nursing schools. Although there is no official representation from state boards of nurse examiners or from the Association of Collegiate Schools of Nursing, several individuals on the committee are familiar with the activities of these two groups. In addition, there are nine consultants to the committee. Two are official representatives of the American Hospital Association, and there is one official representative from each of the following: the American Medical Association, the American Nurses Association, the National Organization for Public Health Nursing and the American College of Surgeons. The other three consultants were chosen because of their wide experience with accrediting practices in other fields.

Definition of Purposes

One of the first activities of the committee was to define the purposes of the accrediting project. These appear in a statement of policy prepared by the committee on accrediting and are as follows:

1. To stimulate the general improvement of nursing education and nursing practice in the United States through accrediting practices.
2. To help those who are responsible for the administration of schools of nursing to improve their schools.
3. To give public recognition to schools that voluntarily seek and are deemed worthy of accreditation.
4. To assist in guiding prospective students in their choice of schools and by the same means to assist secondary schools and colleges in their vocational guidance programs.
5. To serve as a guide to state boards of nurse examiners in further defining their standards for the recognition of schools and to promote reciprocal relations in the registration or licensure of nurses for practice.

(*Continued on page* 70)

Miss Hawkinson is director of nursing education, University of Chicago, and past president of the National League of Nursing Education.

Accrediting in Practice

BERTHA W. ALLEN

TO THE administrator of a hospital whose school has been surveyed by representatives of the accrediting committee of the National League of Nursing Education, the value of the program seems inestimable. The approach to the survey through literature in nursing journals was most helpful in preparation for the cooperative study. It was indeed a cooperative study in that every department in the hospital shared in measuring the adequacy of its work in relation to the preparation of the student for meeting the needs of the graduate nurse and likewise in measuring the adequacy of the hospital's nursing service to its patients.

The technics employed were simple enough to be used by head nurses and supervisors and are proving most helpful in continuing such an analysis. Although the visitors sent by the accrediting committee did not suggest changes in the program, they established a feeling of rapport that encouraged stimulating questions and interchanges of opinion. The professional objectives to be obtained in each department were reviewed and thereby clarified.

Interchange of Views Helpful

There is danger of complacency and stagnation when an organization functions too long on previously established merits; likewise, there is danger of discouragement when an organization is too close to its own problems. The interchange of views with the visitors, who had been chosen because of their preparation and experience, was exceedingly helpful in these situations. Any organization is bound to be stimulated out of a tendency toward complacency by measuring its objectives and outcomes, not merely in the light of its own achievements but in the light of these achievements in relation to those of similar institutions that have the same objectives. The tendency to discouragement is lessened when one realizes that these same problems must be met throughout the nursing world. An opportunity to know how other hospitals and nurses are attacking the same problems is offered when visitors of such a nation-wide project make a thorough survey of schools of nursing.

No matter how capable the personnel of a hospital might be, it would not be possible for it to prepare such a survey because no one hospital has representatives of all types of nursing needs. Even if it had the time to make a careful survey of the activities and needs of its own organization, it would of necessity be less objective and, hence, less effective.

Data on All Departments

The methods of this survey seemed sound; the visitors brought carefully planned schedules on which they collected data in each department of the hospital; these data, in turn, were submitted to an executive committee of the accrediting committee, consisting of 10 members who represented every kind of nursing activity in all types of hospitals throughout the country. The schedules had been prepared in consultation with their executive committee and put into use after careful revision by that committee.

The visitors spent two full days in the school studying with the departmental supervisor the aims and activities of the department, the plans for student education and nursing care. The following examples are representative of the character of the survey as observed in the Newton Hospital, Newton Lower Falls, Mass.

1. Through printed reports, school records and conferences with the director of nursing the general policies of the school and the functioning of the school council were considered. Samples of all records relating to student education were submitted and discussed.

The visitor who had studied similar records from many schools gave helpful answers as questions arose, and although changes were not suggested some have been made that have proved helpful.

2. Other schedules of study dealt with the service and welfare of the faculty, the selection and orientation of students, plans for students' welfare during residence; the educational program in the classrooms, and experiences in the nursing situations on the wards. These schedules were quite complete and it is hoped that, when the result of the survey is returned to the school, weaknesses will be pointed out and helpful suggestions will be made.

In each department the visitors sought evidences of successful teaching and nursing. For instance, such questions were asked as "What evidences are there that the nursing experience on this ward teaches the student to meet subsequent experiences successfully?" After the survey a part of the staff education program was devoted to the problem of forming technics to measure evidences of student growth and of weaknesses and strengths in nursing.

Programs Integrated

An interesting phase of the survey dealt with methods of integration throughout the entire educational program and implied specific instances whereby these integrations could be strengthened. As an example, the work of the student nurses in the diet kitchen was observed and particular attention was paid to the following factors: (1) provision for uninterrupted concentration while computing diets; (2) lighting, ventilation and hygienic standards; (3) transportation of food to the wards; (4) provisions on wards for serving hot and cold dishes, and (5) tray service, including tray identification, methods of conveying trays to patients, methods of collecting the trays and recording food eaten, the students' knowledge of patients' needs and wishes and their ability to instruct patients in their dietary needs.

Nursing situations of all types were studied in this detailed manner with equal emphasis on the educational value of the experience and on safeguarding the welfare of the patients. Many outstanding benefits resulted

Miss Allen is administrator of the Newton Hospital, Newton Lower Falls, Mass.

from the survey. Requirements for accreditation have been established by the committee on the basis of what the average good school believes should go into the preparation of a nurse. The visitors who made the survey were well prepared to offer help. The methods used can be applied in continuing to measure the effectiveness of nursing in our own organization. The results of the study, with recommendations, will be returned to the hospital for its future guidance. Certain data will be requested annually from the school and these data, as well as facts gathered on succeeding surveys, will provide the basis for substantiating or revising the criteria of evaluation.

Because the aims of accrediting seek to encourage better prepared young women to enter the profession of nursing and to raise the standards of the profession, I believe that the type of nursing service will be raised to a higher plane. Eventually, the students who enter the school will feel a greater sense of loyalty toward it, as well as security in knowing that their school meets such standards. Graduates who wish to work in other states will find it less difficult to obtain temporary employment while their registration is pending.

These values, as well as the intangible ones that have come from participating in the project, have been well worth the cost.

Accrediting in Theory

(*Continued from page* 68)

6. To make available to institutions admitting student or graduate nurses with advanced standing information that will help in evaluating professional credentials.

7. To provide information that may be made available to lay and professional groups for the purpose of developing an understanding of the ideals, objectives and needs of nursing education.

The determination of criteria to be used for the evaluation of schools was the next problem that confronted the committee. In approaching this problem, the committee with its consultants discussed and agreed upon certain fundamental principles, drawn in part from the experience of the North Central Association. The most significant of these were that too great emphasis should not be placed on quantitative requirements; that nothing should be done to encourage all schools to follow the same pattern and so discourage institutional initiative and experimentation; that evaluation should be made in terms of the stated purposes of the school, and that the total picture or pattern of the school should be the basis on which the school would be judged, in which case superiority in certain areas might compensate for weaknesses in other areas.

Because little recent objective data about schools of nursing were available to show the characteristics of a school that are definitely related to excellence, it was decided to spend a year in accumulating data from fifty-one schools in different parts of the country to be used as a basis for the formulation of criteria.

This experimental year proved to be of inestimable value. It provided needed data not only for the establishment of criteria but also for determining fees. In addition, it provided an opportunity to acquaint nurses, hospital administrators and lay boards with the league's purposes in developing an accrediting program. These visits were completed on April 1, 1939, and the professional secretaries then devoted their time to analyzing the data collected. On the basis of this analysis the tentative criteria and schedules were revised, a statement of policy prepared, a scoring plan developed and a manual prepared for the use of visitors. (A manual for schools will be prepared later and will include a discussion and interpretation of the statement of policy.)

The statement of policy consists of a brief presentation of the criteria by which nursing schools will be evaluated. This is sent to schools that are interested in becoming accredited and serves to acquaint them with the characteristics that will be considered in determining a school's eligibility for accreditation. Some of the factors included are organization, administration, finance, faculty, students, curriculum and facilities.

The schedules, of which there are seven, are for the purpose of accumulating data about the school that is applying for accreditation. From now on, these schedules will be sent to schools prior to visitation. In this way much of the objective information can be obtained by mail, thus permitting the investigators to spend their time in gathering the type of information that cannot be obtained by questionnaire and in gaining impressions of the functioning of the school through carefully planned observations.

On the basis of the cost involved in visiting these first 51 schools, a policy was formulated with relation to fees. It had been voted earlier that a blanket charge would be made for visitation, the amount to be determined following the visitation of the first group of schools. Under the plan decided upon, an institution that applies for accreditation will pay $15 when the application is filed and $235 after the school has been approved for survey but before the visit is made, making a total of $250. An annual fee of $35 is to be paid by each accredited school, beginning one year from the date of notification of accreditation.

To correct any misunderstanding that may exist with relation to the financial aspects of the accrediting program, may I say that there is no thought of this project's being a source of income to the league but it is hoped that, with the exception of overhead expense, it will be self-supporting. To date the league has invested approximately $27,000 in the program and will continue to meet the overhead expense. The $250 is planned to cover the cost of visitation and the annual fee of $35 will make possible a follow-up program for the benefit of the schools accredited. Just what this program will be has not yet been decided but it will undoubtedly include special studies of educational problems, yearly reports from schools and provision for a yearly conference of schools that have been accredited for the purpose of discussing problems of common interest.

Psychiatric Facilities

Within the General Hospital

FRANKLIN G. EBAUGH, M.D., and CHARLES A. RYMER, M.D.

THE psychiatrist in a psychiatric clinic has often remained as isolated as though he were still in a state hospital. In such cases, the medical man and psychiatrist meet each other only rarely and tend to blame each other for the lack of mutual understanding. Because of this, a movement has developed to make psychiatry an integral part of medical teaching and practice.

This plan can be effected, in part, by establishing psychiatric facilities within the general hospital. These have been developed in three ways: (1) a psychiatric consultation service; (2) a psychiatric service within the general hospital through the department of medicine; (3) a psychiatric liaison department. These three methods are considered in greater detail below.

Psychiatric Consultation Service.—The oldest and commonest service that is outside the major clinical departments of the hospital is the consultation service. There is no formal attachment of the staff psychiatrists to the department of medicine, surgery, obstetrics or pediatrics. The psychiatric department supplying the consultation may be a separate division in the hospital or medical school. It may consist of few or many men who work part time or full time in the general hospital.

Unfortunately, some psychiatric consultation services in general hospitals function chiefly as diagnostic commitment stations. Little or no time is left for consultation in the medical, surgical, obstetric and pediatric wards for those problems of personality disorder that are in need of special attention. Nor do the facilities permit interdepartmental research programs or the teaching of nurses, clinical clerks or resident staff.

In a well-executed program, attention is given to the social and personal factors of illness as they are seen on the hospital wards. Of special value are interdepartmental research projects, seminars, teaching of nurses, medical students, social workers and the representatives of the respective departments. Dr. Stanley Cobb has described an interdepartmental teaching conference as conducted in the Massachusetts General Hospital.

"Weekly at 2 o'clock on Fridays there is a joint teaching conference of the psychiatric and medical services. This is directed by Doctor Cobb and participated in by representatives of the medical and psychiatric services, a medical social worker and the medical clinical clerks, usually 10 in number, who are on duty for the month.

"Psychiatric conditions that commonly come to a medical man, such as anxiety neuroses, mild depression and hysteria, are illustrated and discussed by the student and the conference. Conditions in which psychogenic factors seem important, as for instance Graves' disease, peptic ulcer, asthma, angina, psychological symptoms of pernicious anemia, and vitamin deficiencies, are discussed. Drug deliriums are described from time to time as proper cases arise.

This discussion centers around the larger hospital, especially the hospital connected with a medical school. The establishment of this service in a small hospital depends upon the availability of an adequately trained personnel

"The emphasis is on diagnosis and handling of common problems which have a psychiatric slant and which arise daily in the handling of patients, rather than on theory."

Similarly, the Payne Whitney Psychiatric Clinic in New York City has conducted a consultation service in the medical and pediatric wards of the New York Hospital.

W. D. Muncie and T. A. C. Rennie of Johns Hopkins Hospital feel that the consultation service is most successful when physicians are helped in the common-sense management of psychiatric conditions and patients are helped in the development of a state of relaxation, of freedom from worry and anxiety and of a sense of security in the hospital environment. In discussing the work of this service, Rennie noted:

"The combined public wards of the Johns Hopkins Hospital made 265 requests for psychiatric consultation to help in the diagnosis and management of patients entered routinely on the general services for conditions not considered psychiatric at the time of admission. . . . In the first [group] patient's symptoms and complaints are inadequately accounted for by all the methods of systematic study of organ pathology; or else physical abnormalities are present but are too meager to explain the intensity and variety of the patient's suffering. . . . The second group consists more of patients who enter the hospital with complaints suggesting an unrecognized psychotic or semipsychotic involvement; or who develop such a reaction in the hospital, either to the knowledge of their disease or to the complications superimposed upon them by the environment or procedures of the hospital and staff; or whose psychotic reaction exists side by side with certain medical conditions and often profoundly alters the original symptoms for which they sought help."

The authors are from the Colorado Psychopathic Hospital, University of Colorado School of Medicine and Hospitals, Denver.

In New Haven Hospital, members of the senior resident psychiatric staff are assigned to the general hospital wards for consultation service; patients needing psychiatric treatment are referred to the psychiatric in-patient or out-patient department. This arrangement has resulted in a productive exchange of ideas between the divisions of psychiatry and medicine as demonstrated by the work on such conditions as hyperthyroidism and the anxiety syndromes and psychogenic aspects of ulcerative colitis.

No Stereotyped Pattern

It is apparent that the existing psychiatric consultation services do not fall in any stereotyped pattern. The obvious variables are those of the training, enthusiasm and available time of the psychiatric staff; the interest of the resident staff of the hospital, and those factors dependent upon the physical setup of the hospital and upon administrative policies. Improvement of psychiatric consultation services should and will take place along the lines indicated by these variables.

Psychiatric Service Within the Department of Medicine.—In order to provide an adequate service, care must be taken to prevent the isolation of psychiatry from its parent psychiatric hospital. Care must be taken also to avoid the creation of a hybrid department with proficiency in neither discipline or with a tendency to oversimplification and overpopularization of the psychiatric material. The internist must guard against the development of a quasi or pseudo grasp of the material studied and the assumption of a fundamental knowledge of psychiatry. Finally, it may be undesirable to have the psychiatric policy dictated by a nonpsychiatrist.

This type of service is the most difficult to establish because of the degree of cooperation needed between the departments of medicine and psychiatry. Unfortunate consequences may result from such an organization but this danger is contingent upon a number of factors, most important of which are the ability and interest of the medical and psychiatric personnel.

Columbia University, a successful example of this type of service, may serve as a model for other groups interested in organizing a service along these lines. The personnel assigned to the medical department for this service is composed primarily of psychiatrists interested in psychosomatic relations. This group serves all departments of the hospital as well as the medical school. As the department functions at Columbia, excellent facilities are available for integrating psychiatry with the rest of medicine. Each service in the hospital may make full use of the psychiatrist who is attached to the department of medicine.

Such a service demands a psychiatrist with a certain special type of training. At times he must assume an authoritative position in both diagnosis and therapy. He must be qualified in the several fields of medicine as well as psychiatry. He becomes more than a consultant with special psychiatric knowledge; he is a psychiatrist with sufficient special knowledge in the other fields of medicine to command the respect of his colleagues.

Has Great Possibilities

Liaison Department.—The psychiatric liaison department is a natural development from the two psychiatric services described. The organization of such a department in the general hospital has great possibilities in bridging the chasm between general medicine and psychiatry. Headed by a full-time psychiatrist and social worker, together with adequate clerical help, the department meets the psychiatric needs of both the in-patient and out-patient departments.

Even though the liaison department is a natural outgrowth of the consultation service, it presents a fairly difficult problem in organization. This statement is confirmed by the majority of medical schools answering a recent questionnaire on this subject. Most of these schools have established what may be called a teaching liaison between the department of psychiatry and the other major departments in the general hospital but, on the whole, this service is little more than a consultation service. While practically all schools recognize the value of a distinct liaison department and while professors of psychiatry generally recognize its importance, only eight schools have been able to establish anything approaching this organization.

The stumbling block in the organization of this department in medical schools is its cost. Most schools have been forced to struggle along with their existing personnel to care for the psychiatric needs in the general hospital since the minimum cost of establishing a liaison department is approximately $10,000 a year.

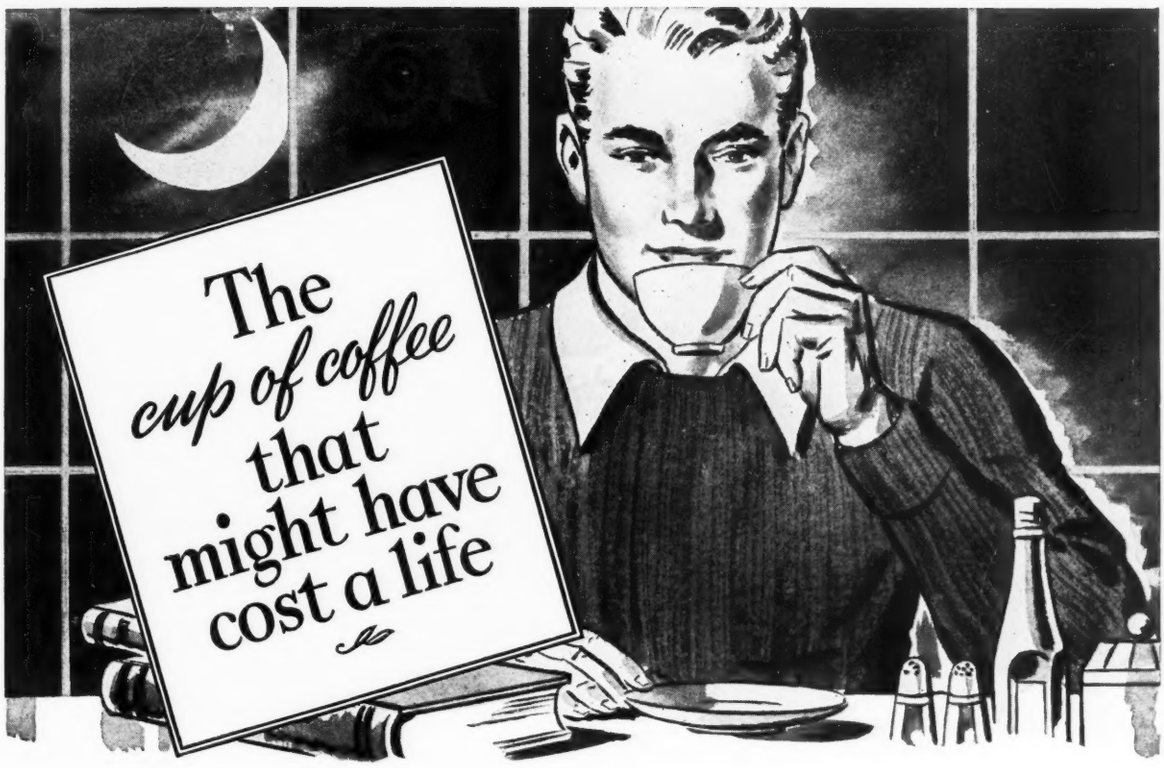
In September 1934 the Rockefeller Foundation made possible the organization of a liaison department at the University of Colorado. This is called the psychiatric liaison department of the Colorado General and Psychopathic hospitals and maintains a full-time staff consisting of a psychiatrist, a social service worker and a secretary. E. G. Billings has developed an excellent service which embraces all of the in-patient and out-patient services in the hospital and he has used these services for the teaching of medical students and of Commonwealth Fund fellows in psychiatry who serve as assistants for four month periods.

Interdepartmental conferences and seminars have been of inestimable value in promoting a more thorough understanding of the sick person. Didactic lectures and electives are used to supplement and to guide the clinical teaching. A liaison service has practical economic advantages through its reduction in the hospital stay per patient as a result of the earlier diagnosis and treatment of the essential problems of the patients.

On an Open Ward

Organization of a Psychiatric Unit.—Following this consideration of the various psychiatric services in the general hospital, let us now turn to a consideration of the organization of a psychiatric ward or unit in the general hospital.

This can be developed in two ways. First, the unit can be arranged as a so-called open ward service on either the medical or surgical ward. This plan is followed by Thomas J. Heldt in Detroit and has proved satisfactory. The few psychiatric liaison departments now in existence handle their case material in much the same fashion with the additional oppor-



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tunity of referring excited and unmanageable cases to a near-by psychiatric hospital.

This type of organization is, of course, the most courageous and farsighted but is the most difficult to operate satisfactorily. This form of care requires an alert full-time staff. The care of the acutely disturbed patient on an open ward is frankly a problem and is outside the province of the general hospital. However, the incidence of excitement and uncontrollable behavior is far less than formerly thought and the fact that occasional psychiatric cases are disturbed should not militate against the provision of needed psychiatric facilities for many types of patients. Formerly, any such arrangement was looked upon with disfavor and such patients were automatically ruled out of general hospitals because the medical profession was confused as to their treatment and management. Even now the general attitude of the nonpsychiatrically minded nurse and practitioner is antagonistic toward this type of case.

As a result of the educational efforts of the committee on psychiatric education of the American Psychiatric Association this attitude on the part of the general practitioner is rapidly being displaced by a more healthy objective psychiatric attitude in the younger men coming into medicine.

Closed Unit or Ward

The second type of psychiatric unit in the general hospital is the closed psychiatric unit or ward. This permits the care of patients somewhat more disturbed than can be accommodated in the open ward arrangement. Many hospitals have seen the possibility of extending their usefulness to the community by altering a certain section of their buildings to accommodate the management of psychiatric cases. The general procedure has been to take some portion of the hospital which easily lends itself to modification and equip it with the necessary essentials for the care of psychiatric cases.

From a medical point of view, some kind of a psychiatric unit in the general hospital is of great value. Any case needing psychiatric care can easily be transferred to this service where adequate facilities and personnel are available to treat the patient. In the absence of a near-by psychiatric hospital, this type of unit is indispensable for the successful operation of a psychiatric liaison department. From an educational standpoint also the organization of a psychiatric unit in the general hospital is of great value.

Space Requirements

Space Needed.—The amount of space to be allotted for the care of mental patients in general hospitals must be largely decided by the local needs and by the other facilities available.

Of the 4356 general hospitals registered in 1939 by the American Medical Association, 3.5 per cent reported a department for mental patients. In the Army a neuropsychiatric ward of 30 beds was provided for the cantonment base hospital that served a population of from 28,000 to 40,000 troops.

Thomas J. Heldt finds "that 12 to 20 per cent of all patients admitted to a general hospital present conditions and problems that are primarily neuropsychiatric regardless of the patient's complaint or diagnostic impression on first contact. If mention is made of all cases showing secondary and minor disturbances of nervous organization then the percentage promptly rises to 30 per cent and even higher." Raymond S. Crispel feels that from 4 to 8 per cent of both in-patients and out-patients coming to general hospitals need special psychiatric attention and treatment; moreover, this percentage may be much higher in certain communities. He believes that at least 5 per cent of the beds in a general hospital should be devoted to the study of neuropsychiatric problems.

In our own clinic, Billings found in a survey of 6442 patients admitted to the general hospital over a period of 17.5 months that 3.5 per cent of the cases were regarded as psychiatric problems by the regular nonpsychiatric staff. These problems were referred to the psychiatric liaison department for treatment. The incidence of personality disorders as seen in the out-patient department was 3.83 per cent, or approximately the same as the house material. It is interesting to note that 14.6 per cent of all new cases admitted to the medical clinic were considered to have some psychiatric problem that could be treated by a physician with considerable psychiatric training.

Equipment and Plan of Care.—Any preconceived plan for the establishment and maintenance of a psychiatric unit in a general hospital may meet with disaster, but a few basic requirements are necessary. If the unit is to be developed on an open surgical or medical ward, the major prerequisite is a well-trained professional staff, especially nurses and attendants. A battery of single rooms may prove more advantageous for certain types of cases; however, open wards will prove beneficial for others. The neuropsychiatric personnel must be available at all times to aid in the care of the psychiatric case. Especially is this true if the patient presents any problems in management.

Special Equipment Has Wide Use

Any well-equipped general hospital will naturally possess the majority of the facilities needed for the management of a psychiatric unit. Operating rooms and x-ray, laboratory, dietetic and physical therapy units can be utilized in the diagnosis and treatment of the psychiatric case. Certain special treatment facilities, such as hydrotherapeutic and electrotherapeutic appliances, occupational and recreational therapy, are of value in treating the psychiatric case and have a definite value also for the general hospital patient.

This discussion has necessarily centered around the larger hospital and especially the hospital connected with a medical school. This does not mean that some type of psychiatric service cannot be rendered to the small hospital; however, the establishment of this service in a small hospital is dependent upon the availability of an adequatelv trained personnel. Advantages are to be derived from this service from the standpoint of the patient, research, teaching and administration of the hospital. The organization of psychiatric facilities in the general hospital presents few difficulties that cannot be overcome as the need for this service becomes more generally accepted by administrators.

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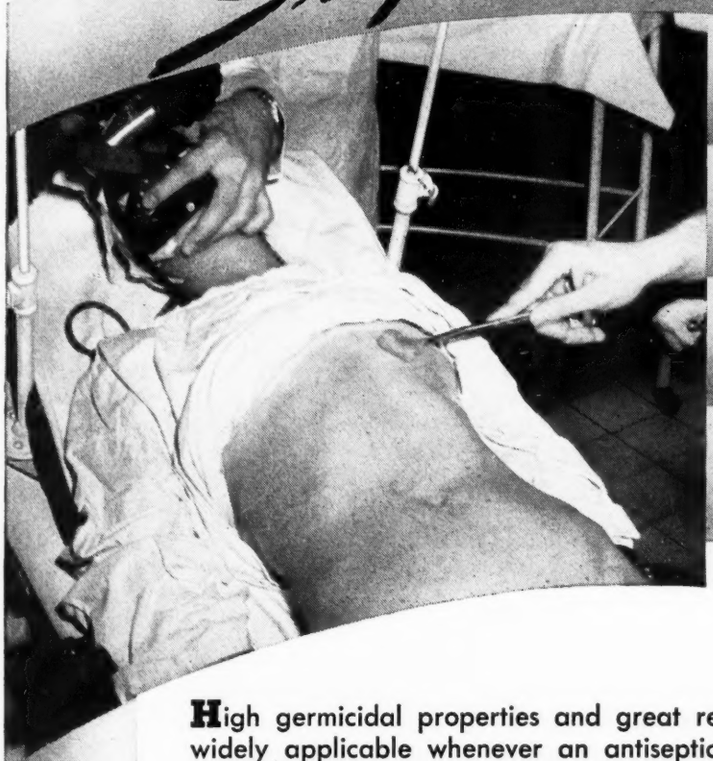

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Ward Plans Come to the Fore

The Need for a Low Cost Plan

ABRAHAM OSEROFF

WARD contract plans are essential if nonprofit hospital care insurance is to effect its program with reasonable adequacy. Our hospital insurance plans should aim to develop a premium schedule that is low enough to include all those who, on an insurance basis, can pay the cost of minimum rate provision in our hospitals for themselves and their families. Thus our nonprofit hospital plans have or should have access to a little more than half of the total population of the United States. The remainder, or those living on incomes somewhere under $1000 a year, become in part or whole, as the income goes down to the vanishing point, a problem for private philanthropy and governmental agencies.

With few exceptions, the nearly 5,000,000 persons covered today under nonprofit hospital care insurance plans are largely in the so-called "white collar class." The heavy industries and the occupations that attract workers in large groups have been left relatively untouched. At best there has been no more than surface penetration. As we deal more and more with the mass in the vast industries of this nation, it will in all likelihood become imperative that low rate hospital care insurance coverage be available, certainly in the more industrialized sections of the country.

We felt this pressure rather early in Pittsburgh, and our "ward rate plan" was introduced to meet it about a year ago. The benefits provided under this plan are exactly the same as those afforded through the semiprivate contract, *i.e.* twenty-one days of hospitalization for each member of the family, maternity care after twelve months' membership and unrestricted operating room, anesthesia, x-ray and other special services. Instead of the two bed room provided by the semiprivate contract, however, the rooms are of three beds or more, depending upon the type of facility provided in the particular hospital. The rate schedule is 60 cents for the individual; $1 for husband and wife and $1.25 for an entire family (irrespective of size), with full benefits for dependents. This compares with 75 cents per month for the individual subscriber under the semiprivate contract, $1.40 for husband and wife and $1.75 for the subscriber and his entire family.

The term "ward contract" is unfortunate and we are planning in our next printing to substitute a term that is better suited to the service provided. "Ward" carries the connotation of free service—a ward of the hospital or of the medical profession. The ward contract is not intended to imply this significance at all. We expect the holder of our ward contract to be able to pay a minimum medical or surgical fee. This contract should possibly be called a "standard contract" with the thought conveyed that it carries the basic necessary service from the point of view of room facility as provided by the hospital. The semiprivate contract, which also is a private room contract upon payment of the differ-

(*Continued on page* 78)

Mr. Oseroff is administrator of Montefiore Hospital, Pittsburgh, and secretary of the Hospital Service Association of Pittsburgh.

How It Works in Massachusetts

REGINALD F. CAHALANE

THE Ward Plan of the Associated Hospital Service Corporation of Massachusetts was inaugurated February 1, 1939. Enrollment has not been up to our expectations, but we have a net enrollment of 16,000 participants. A total of 8750 member years had been accumulated up to January 1, 1940. It is a little early to determine exactly how we will come out financially but there is indication that this type of enrollment is entirely sound if properly controlled.

The ratio of hospital days per participant year is .586. The ratio varies little among the three types of enrollment: (1) individual, (2) husband-and-wife and (3) family contracts, but the relationship varies greatly. As is the case with our regular plan, the husband-and-wife classification is slightly higher and will probably increase materially as more participants become eligible for maternity coverage. The family contract, which is the most popular, is the danger point to be watched.

The hospital cost per contract without maternity coverage is $1.10 and the income per contract, $1.25 monthly. Allowing 12 per cent for administrative costs, the entire amount available for hospitalization is being used, leaving nothing for maternity service.

The ratio of hospital days per discharged case is 6.6 and the discharges per participant year equal .089. Utilization by the employed male is, as would be expected, rather low. Utilization by the employed female individually enrolled is twice that of the employed male enrolled on a like

Mr. Cahalane is executive director of the Associated Hospital Service Corporation of Massachusetts.

M. BURNEICE LARSON, DIRECTOR

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There may have been a time when the Institution and the Individual, seeking to find the right connection in this field, could function efficiently by personal methods. Now, however, the field is too intricate for that. Of necessity, there must be an institution like The Medical Bureau, whose sole business it is to know the professional openings, needs and opportunities in this field . . . and the experience, talent and capacity of the men and women who are seeking places of greater opportunity.

With a clear conception of this need, The Medical Bureau has for years built up its connections throughout the United States and beyond, and has developed a balanced system of appraising the Place and the Person in a confidential and judicial manner.

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basis. The employed married female, when not enrolled in large numbers, does not appear to be a good risk. The utilization by the female dependent is nearly twice and a half that of the adult male. Most of the hospitalization is for adult female dependents and children.

To appease the medical profession, salary limitations were imposed to regulate eligibility. Participants whose aggregate annual incomes are less than the following amounts are eligible for membership: single subscriber, no dependents, $1000 per year; subscriber and one dependent, $1250 per year; subscriber and two dependents, $1500 per year; subscriber and three dependents, $1750 per year, and subscriber and four or more dependents, $2000 per year.

If at the time hospitalization is necessary it is determined by the hospital that the aggregate annual income of the subscriber and the members of his family group exceeds this schedule, then admission to a ward is at the discretion of the admitting hospital and subject to its rules and regulations. If admission to a ward is denied and if the participant is admitted to semiprivate or private accommodations, the patient is credited with an amount equal to the charges that would have been incurred for ward care, but in no event is this credit to exceed the then prevailing rate paid to hospitals for ward plan participants. Our rate of payment is $4 per diem.

The benefits to a ward plan subscriber are exactly the same as to a regular plan subscriber except that x-ray examinations are allowed, not to exceed $25 during any contract year if the participant is admitted as a public or service ward patient paying no medical fee. The same rule applies to anesthesia. With the exception of a few hospitals that have peculiar staff problems, our ward plan is working satisfactorily from the point of view of the hospitals and their public relations programs.

The number of participants per contract is rather high in comparison with the regular plan, there being 2.79 participants per contract as against 1.85 for the semiprivate plan. It is desirable that some means be found for enrolling a higher percentage of individuals, even though 39 per cent of the contracts are issued to individuals and 47 per cent, to families, leaving 14 per cent to husbands and wives. Because of the good experience with the individuals, it is probably desirable to reduce the rate somewhat and sell the employer the idea of contributing something toward the cost of membership. Such a lower rate will be justified if a high percentage of enrollment can be obtained.

Because of the relatively high exposure in the family group it is doubtful if the cost can safely be reduced a great deal. It appears that with a high percentage of enrollment, better family selection would result, which might make the family groups self-sustaining. As a safety factor, the loading of the individual rate is undoubtedly justified but it is my opinion that the loading factor should be the employer's contribution.

We have learned that if the ward plan is to be taken by those who should take it, it must be sold, and that if we are to accomplish the desired end, present enrollment tactics must be changed. There is no question that a higher percentage of enrollment could be obtained with employer contribution. If the group companies are able to do this there is no reason why the nonprofit plan cannot do it also.

If we are to render the full measure of service and maintain our position in the face of strenuous competition, it appears to me necessary that we exploit and develop low cost plans. We cannot do this alone because it requires the cooperation of all parties concerned, particularly our member hospitals.

After talking with a number of hospital administrators I believe that hospitals would cooperate in the development of low cost plans for the deserving public, that they would work with the industries of their communities and that they would eventually scold the unprepared patient who failed to join his company group. No regularly employed person could possibly claim that the cost of membership is unreasonable. The hospitals, of course, could not expect to receive compensation equaling the full cost of ward care in every instance, but if they were paid $4 or $4.50 per diem for each case I dare say it would still be more than is generally received today. From the point of view of public relations, much good would result to the voluntary hospital system.

The Need for a Low Cost Plan

(*Continued from page* 76)

ential in rate between the semiprivate room and the private room chosen by the subscriber, then falls into the class of a sort of semiluxury service.

Experience with this contract in Pittsburgh has been too short and too small in volume of coverage to warrant conclusions of any particular value. Thus far we have had no problem in our relations with the medical profession in the various member hospitals in connection with their care of these patients and the payment of the doctors' fees. It is, of course, conceivable that some holders of the low rate contract will not be able to pay the doctor when they reach the hospital. Some few cases like these have arisen. In every instance, however, after proper interpretation by the management of the hospital to the particular doctor involved, there have been complete understanding and ready acceptance of the care of the patient by the doctor.

As of December 31, 1939, our ward contracts comprise 19.1 per cent of the total number. Our total income on ward contracts was 6.1 per cent of the total income for all contracts. This low percentage, of course, is due to the fact that the ward contracts are less seasoned than the semiprivate contracts that go back two years. Payments to hospitals for ward contract subscribers were 3 per cent of the total payments to the hospitals for the given period. Against total income on the ward contracts, payment to hospitals for subscriber patients under these contracts reached only 33 per cent.

These figures must not be taken as an index of the burden of hospital expense but reflect merely the fact that most of the coverage is through recent enrollment. The average length of stay under ward contracts was 7.1 days against 8.4 days under the semiprivate contracts.

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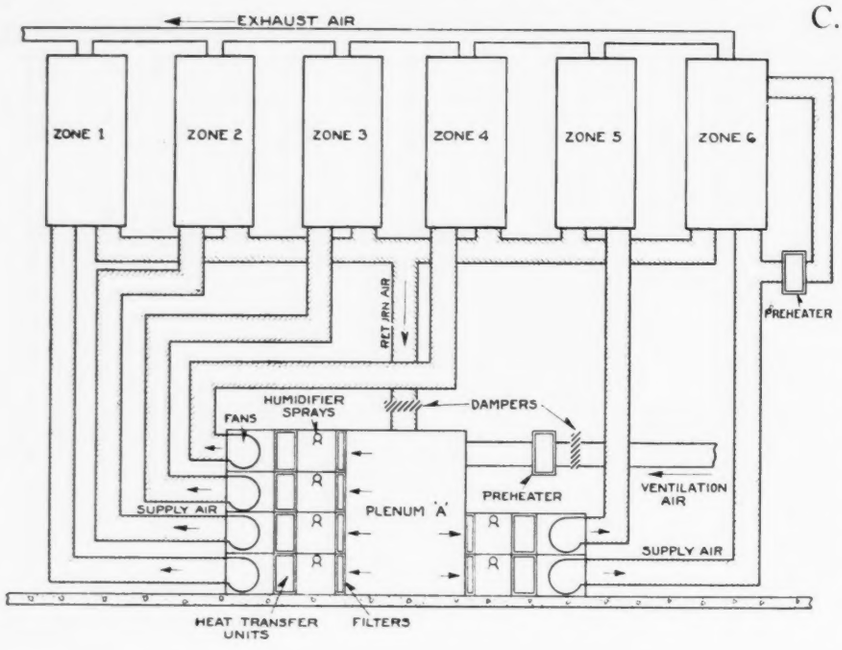


MODERN air conditioning systems have been installed in several new buildings of the Neuro-Psychiatric Institute of the Hartford Retreat, Hartford, Conn., and others are also being installed in parts of the institute that are now being rebuilt.

The purpose of air conditioning, of course, is to maintain comfortable and healthful conditions of air, temperature, humidity, cleanliness, circulation and ventilation throughout each building. The design of each air conditioning system is dependent upon several factors, including the type of occupancy and the economics of the situation. The following description is given for an individually patterned installation that is suitable for the conditions that prevail at the Neuro-Psychiatric Institute.

Features that are particularly worthy of note are the use of the same system in both winter and summer with hot or cold air passing through the same conduits; the lack of cluttering apparatus throughout the occupied area, and the centralized control room with automatic temperature registration for all six zones.

The method by which the air is conditioned and distributed to six individual zones is diagrammatically illustrated in figure I. Point "A" represents a mixture of return air and outside air within the plenum chamber. Each of the six fans draws air first through a 2 inch thickness of wool glass, viscous impregnated, fire-resisting filler and then through a humidifying chamber in which self-cleaning, atomizing spray nozzles add moisture to raise the humidity in the space during the winter. Constant humidity conditions are maintained by a humidistat that controls the amount of spray water. In the summer these sprays do not operate because the air usually contains an excess of moisture which must be removed.

The air is cooled and dehumidified in the summer and warmed in the winter by means of finned tube heat transfer surfaces installed within the air conditioning units. Refrigerated

Figure 1 (above) shows the method by which the air is conditioned and distributed to six individual zones.

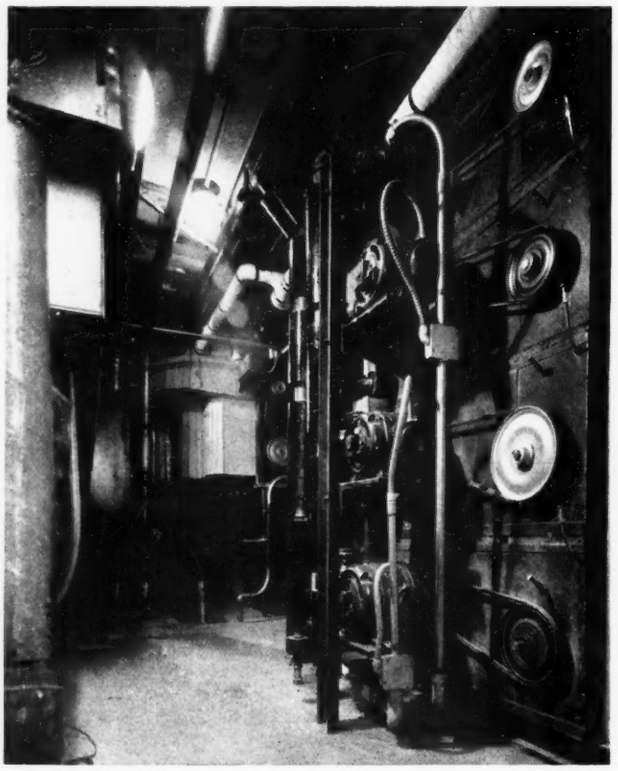
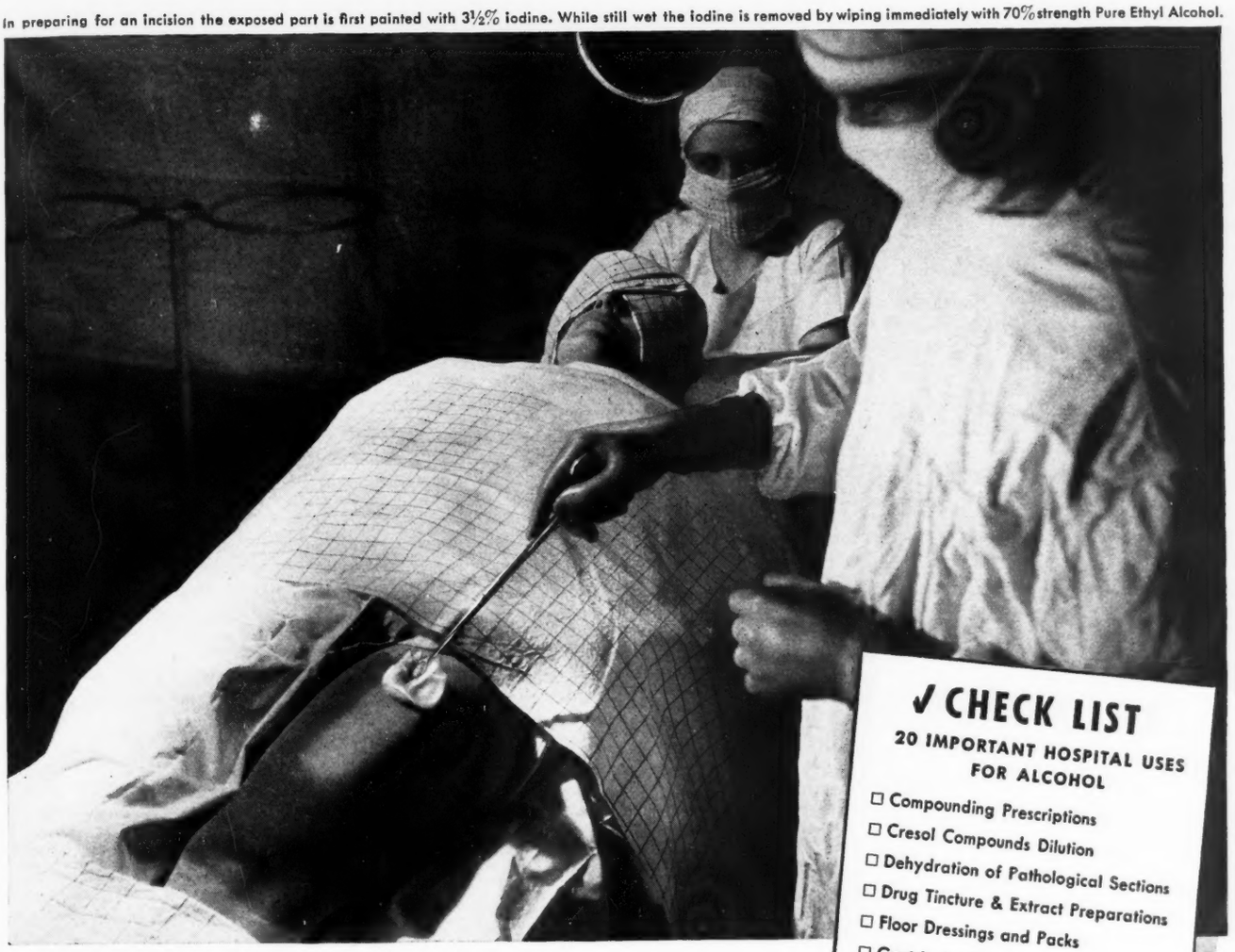


Figure 2 (right) shows the individual motors that drive the fans of the air conditioning units by means of the v-belt drives.

Doctor Burlingame is administrator of the Neuro-Psychiatric Institute of the Hartford Retreat, Hartford, Conn.

In preparing for an incision the exposed part is first painted with 3½% iodine. While still wet the iodine is removed by wiping immediately with 70% strength Pure Ethyl Alcohol.



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water acts as the cooling medium in summer, and warm water is circulated through the same heat transfer units in the winter.

The supply air is drawn through the filter and sprays and across the heat transfer surface by centrifugal blower fans. Supply air ducts connected to the fan discharge openings distribute the conditioned air to the zone which that unit serves. As each of the zones varies in size and heat load, different sized air conditioning units are provided for each zone. In every instance the quantity of air is sufficient to cause gentle circulation without uncomfortable drafts.

Individual motors drive the fans of the air conditioning units by means of V-belt drives and the speed of each fan is adjusted to obtain the proper quantity of air delivery.

The building served by the particular installation described is a two story brick structure with bowling alleys and a recreation room in the basement. In order to deliver conditioned air to the first and second floors from the equipment room in the basement it was necessary to run supply air ducts up through a shaft provided for that purpose. The main distribution ducts in the first and second floor hallways are connected to this riser duct.

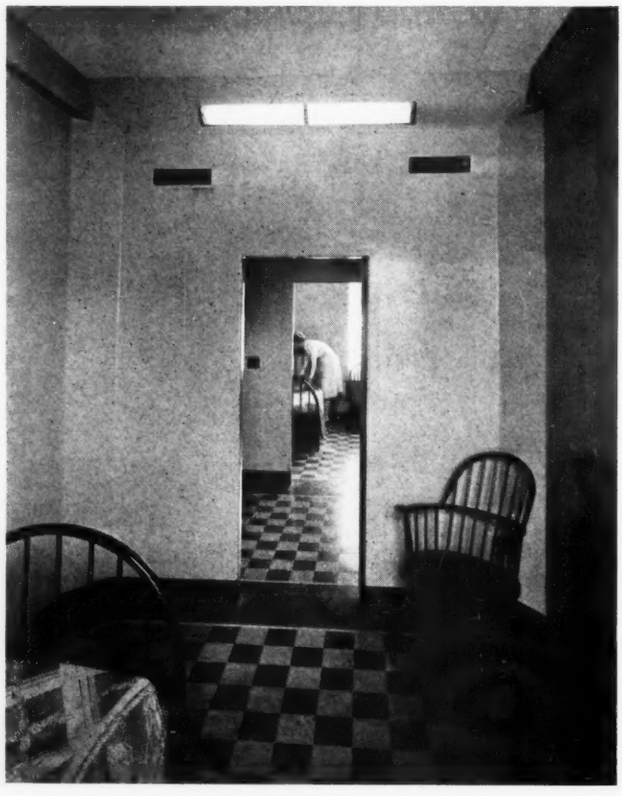
The air inlet grille that provides directional flow of the air is near the ceiling line at one side of the room. On the same level near the other side can be seen a similar grille which covers the return air opening.

Excellent building construction, with permanently sealed, double glass windows and tight fitting doors, has resulted in negligible air leakage into or out of the individual rooms. Therefore, all of the supply air is removed from the room through the return air grille, which is designed to handle the whole amount of incoming air. Where it is necessary for ventilation, air from such areas as kitchens and bathrooms is discharged and is not recirculated; otherwise, air is returned to the plenum chamber, mixed thoroughly with fresh air and started once more on a complete cycle.

The apparatus installed for cooling water for summer air conditioning includes a 40 h.p. direct connected, hermetically sealed, 8 cylinder, freon refrigerant compressor; an evaporative condenser for conserving approximately 90 per cent of the water that would be used in a water cooling condenser; a semiflooded type of water chilling unit in which the heat of the water is transferred to the refrigerant gas, and the necessary pumps, fan motors, valves and other equipment to complete the refrigeration system. The water circulating pump that forces water through the heat transfer surfaces in the various air conditioning units pumps 115 gallons of water per minute in a closed circuit through the water chilling unit.

When cooling is required the refrigerant compressor starts automatically and maintains the water tem-

Above: Installation of branch ducts. Metal was cut and came all ready for assembling on the job.



Air inlet and outlet grilles are the only parts visible.

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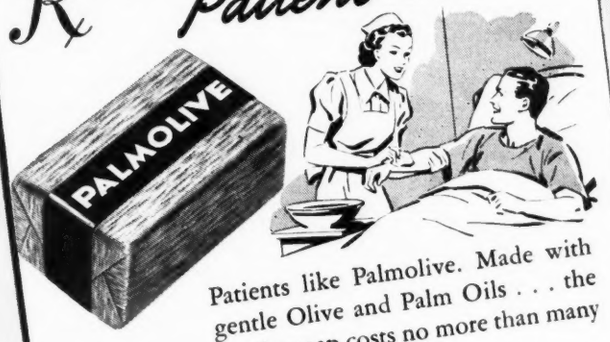

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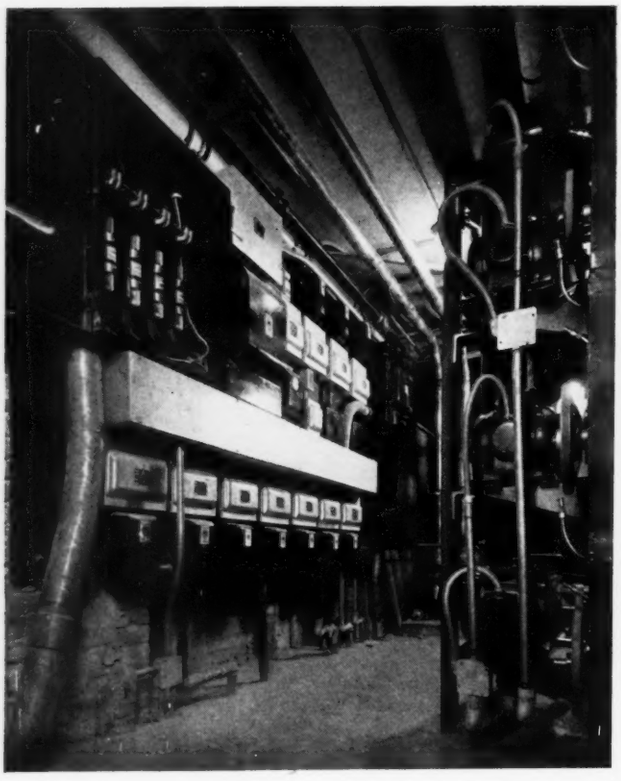

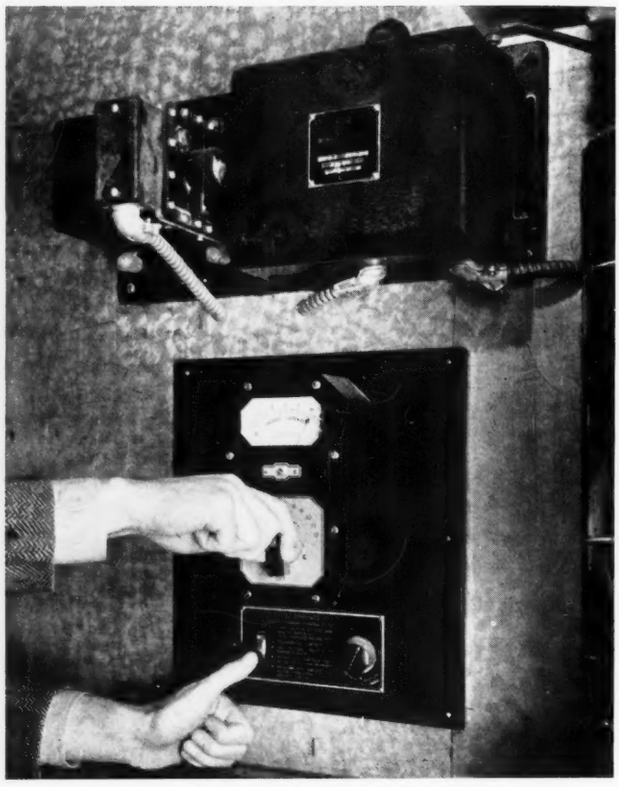

Left: All switches are grouped on a panel board. Right: Outside temperature or the temperature of any of the six zones served may be instantly perceived.

perature at approximately 46° F. These operations are automatic.

A special two-step reduced voltage type of magnetic starter permits the compressor motor to start without unduly loading the electric circuit and thereby prevents objectionable flickering of the building lights.

Protective features include low temperature safety controls located in the water circulating system to prevent freeze-up resulting from malfunctioning of any of the other controls. A high-low pressure compressor cut-out is installed directly on the compressor. This automatically stops the compressor should any portion of the refrigeration system fail to function. A pressure relief valve in the refrigerant piping is vented to the atmosphere to carry off the refrigerant gas in case a fire in the equipment room should create high pressure. An additional low temperature fusible safety plug is also installed.

The entire refrigerant system is installed in accordance with the strictest codes pertaining to safety and it will be noted that this particular type of hospital installation requires a high standard of precautionary devices; also, it is one of the reasons for an indirect conditioning system with no circulation of the refrigerant gas. The freon gas employed in the refrigeration system is nontoxic, nonirritating, nonexplosive and noninflammable.

The electrical portion of this system consists of one 40 h.p. compressor motor; six air conditioning unit fan motors ranging in horse power from ¾ to 1½; one 3 h.p. and one 1 h.p. pump motor; one 2 h.p. evaporative condenser fan motor; two fractional horsepower exhaust fan motors; motorized valves, and control circuits.

Each of the 12 motors is provided with a magnetic switch and a fused disconnect switch in accordance with electrical code standards. All of these switches are grouped on a large panel board together with several magnetic disconnect and distribution switches.

The control wires are brought out to a control panel located on the opposite side of the room. On this control panel is located a temperature indicating instrument by which the outside temperature or the temperature in any of the six conditioned zones may be instantly read.

An automatic change-over from summer to winter control is obtained by a master thermostat located in the main return air ducts. As the temperature of the air returning from the various zones drops down to 73° F., steam from the central steam point is permitted to enter a flash water heater through a motorized modulating steam valve. This modulating steam valve is controlled by a thermostat in the circulating water system which permits only enough steam to enter the flash heater to maintain a temperature of approximately 140° F. The modulating water valves on the various heat transfer units permit just enough water to flow through them to maintain a temperature of approximately 72° F. in the zones they serve. In addition to the temperature control thermostat in each zone, there is an additional low-limit thermostat that eliminates the possibility of a cold blast of air being supplied to any of the air conditioned spaces from a slight over-ride of the modulating water valve.

A steam heat transfer surface located in the outside air duct tempers the incoming air. A thermostat in this duct controls a two-position steam valve to maintain an air temperature of approximately 50° F.

Thermostatic traps control the flow of the condensate from the steam tempering unit and the flash water

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Plenty of Rest!

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"PLENTY OF REST" might mean staying in bed 24 hours a day for several days or more. And naturally a comfortable bed is important when rest is necessary. Beds that are comfortable and *stay* that way make a sound investment of hospital funds.

Just how long a hospital bed remains soft and comfortable depends largely upon the kind of steel that is used in the springs. That's why leading manufacturers use Premier Spring Wire. They know that Premier is the best Spring Wire money can buy. And you can tell whether Premier Spring Wire has been used in the beds you buy by looking for the famous Premier Spring Wire Tag. It is attached to bed springs and mattresses as your guide to better value.

AMERICAN STEEL & WIRE COMPANY

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UNITED STATES STEEL

heater. A condensate pump returns the condensate to the boiler.

There is no transmission of sound between rooms. This important advantage was accomplished by deadening most of the sound entering the main supply duct and installing fire-resisting acoustical material the entire length of the duct run; even the short connecting sleeves from the room outlets are acoustically treated.

All parts of the system that might conceivably need adjustment or maintenance are isolated from the occupied space and access can be gained without disturbing patients in any way. Full automatic control is provided to give even and constant temperature with a minimum amount of attention.

In order to maintain a satisfactory relative humidity in the hydrotherapy room, which is located at the extreme end of the building, a steam reheat coil was installed in the supply air duct. A separate thermostat in the return air duct from this hydrotherapy room controls a modulating steam valve to supply the proper amount of reheat. This is necessary in order to keep the relative humidity within this room at a desirable value without overcooling it.

The total content of the air conditioned area is 250,400 cubic feet, and the installation cost, $37,521. The cost of operating the system for one year has been estimated at $4032, of which $1380 is spent for ventilating, filtering and circulating the air for 92,000 kw. hours, $1792 for heating and humidification and $860 for cooling and dehumidification.

Light Rays Baffle Bacteria

JOHN H. HAYES

A NEW system of ultraviolet irradiation to protect child hospital patients from cross-infection by air-borne bacteria has recently been developed. The first installation of this system was made in the sick infants' ward of Lenox Hill Hospital, New York City.

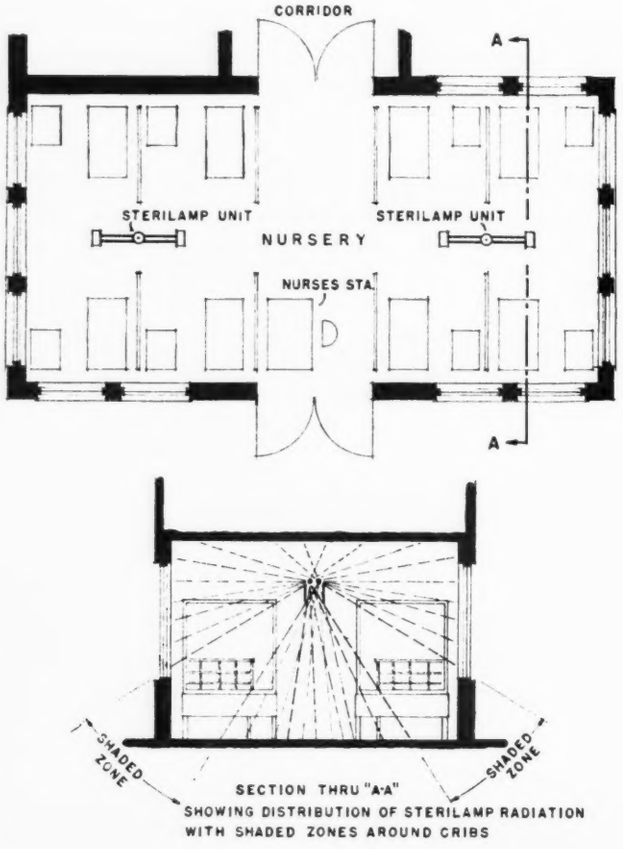
In most of the previous installations of ultraviolet lamps for the sterilization of air, either the lamps were directed toward the ceiling and thus sterilized the air only as it circulated through the irradiated area or else the irradiation from the air necessitated cumbersome protection of patients, physicians, nurses and all others who came into the sphere of the rays.

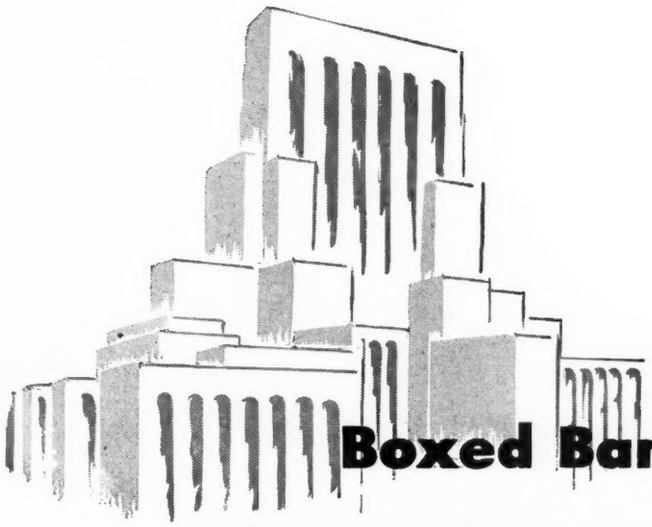
The units installed at Lenox Hill Hospital are attached to the ceiling and directly irradiate an entire cylinder of air 360° in circumference. Baffle plates are added to the sides of the units to shade the infants' cribs, while permitting the air above and below the cribs to be irradiated. These baffles can be regulated to shade the entire cubicle if the patient is permitted to stand up in the crib. Thus the child is almost completely surrounded by air that is constantly being sterilized.

Transient visitors to the nursery, including nurses and physicians, wear a light pith helmet to protect ears and neck from radiation. This helmet is not objectionable. The aisles in which the air currents are most turbulent are kept clean by the constant irradiation from the lamp.

Mr. Hayes is superintendent of Lenox Hill Hospital, New York City.

Baffles on fixtures protect infants; nurses wear helmets.





Boxed Bananas are Convenient and Economical for Hospital Use

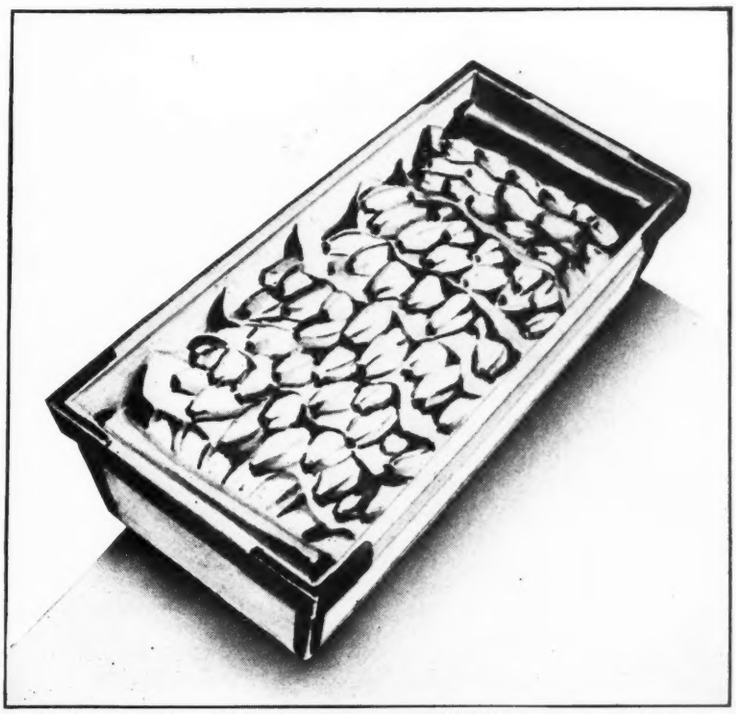
"YES, we have Bananas today," says the modern hospital, "and they're boxed for more convenient use. We've found the detached hands packed in boxes a great improvement over the old purchase-by-bunch method."

An increasing number of hospitals and institutions agree. Naturally so, too, for the reasons are easily understood. Boxed Bananas are relatively uniform in quantity, size and degree of ripeness; relatively free from bruises; dependable for accurate planning of quantity serving; more convenient and satisfactory to use. Finally, boxed Bananas are more economical because there is practically no waste.

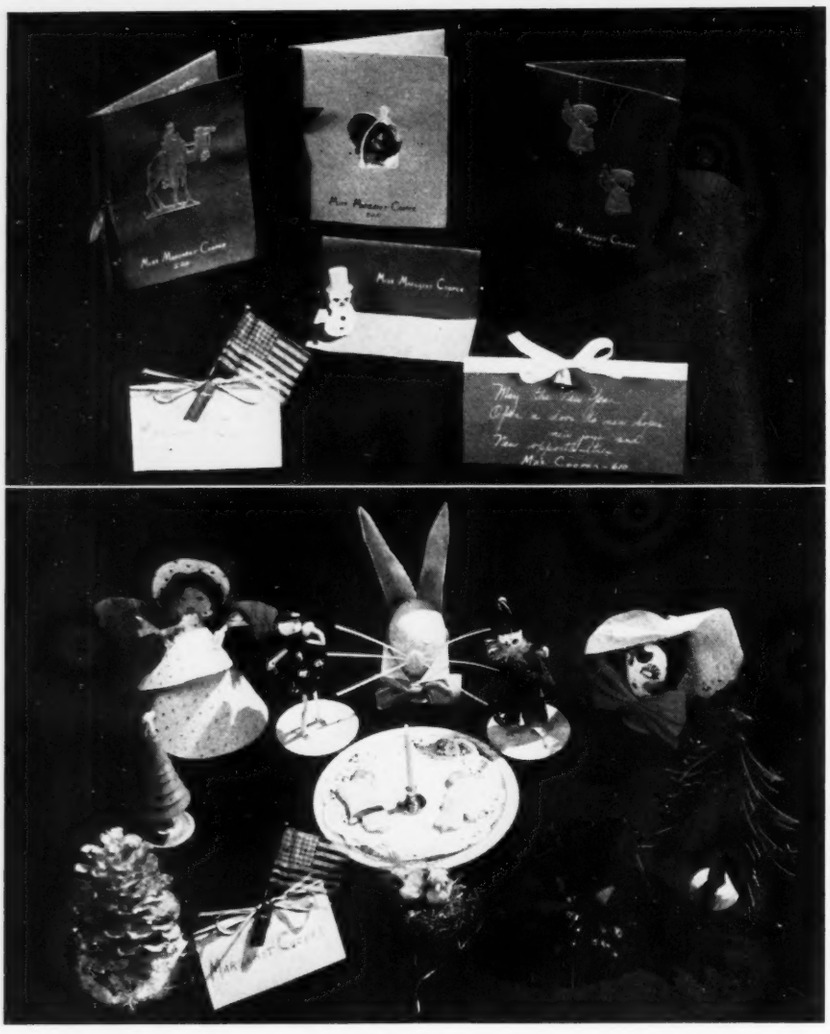
If you haven't tried boxed Bananas, why not specify them when placing your next order? When you receive your Bananas, place them in a room with a comfortable temperature (65 to 70° F.) and let them ripen completely until the golden peel is flecked with brown and the pulp is mellow.

Today Bananas are used by hospitals and institutions in numerous special diets and served in many tempting ways. This bland, nourishing fruit—well liked by most people—contains vitamins A, B_1, C and G as well as many important minerals. It thus helps protect against deficiency in the diet.

For free tested Banana recipes in quantity proportions, write to Fruit Dispatch Company, Home Economics Dept., Pier 3, North River, N. Y. C.



Include BANANAS on your menus regularly for both Patients and Personnel { **Few foods give so much value for your money!**



Flavor With Favors

HAZEL NELSON and JEAN GALLOWAY

SPARKLING silver, snow-white linen, crisp salads, sizzling hot entrées, tinkling cool beverages—we all recognize these as essential features of a well-appointed tray, but when a holiday comes around, we feel that the patient needs an additional bit of the merry season that the outside world is enjoying. Personalized greetings, sometimes thoughtful, sometimes amusing, and little hand-made favors help keep the patient from feeling left out of the holidays.

The authors are dietitian and assistant dietitian, City Hospital, Akron, Ohio.

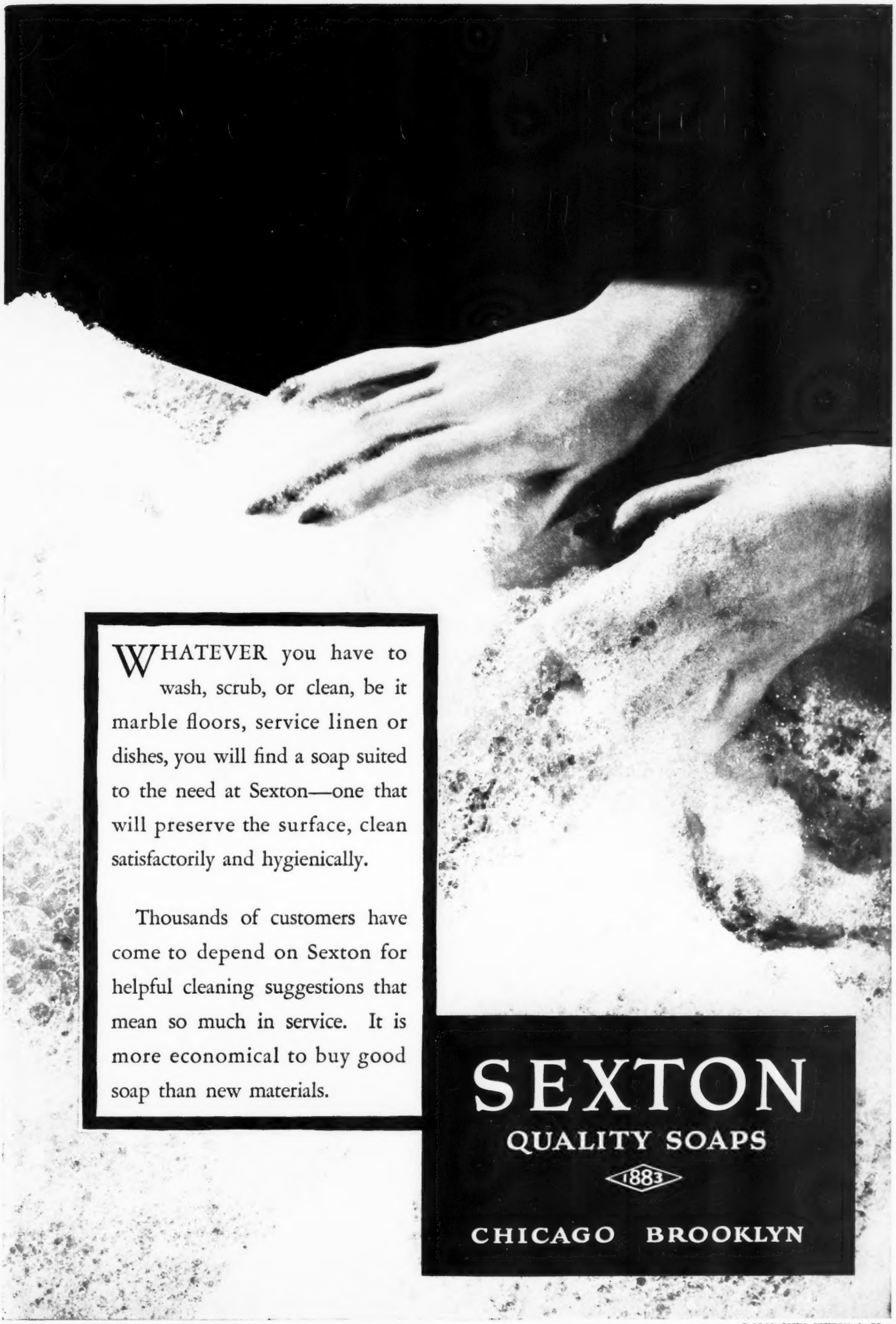
At the Christmas season the dietitian has more than just the dinner tray to "dress up." One Christmas Eve at the City Hospital, Akron, Ohio, we used a pair of cooky angels with spun gold hair and flowing white robes made of icing for tray favors. They were on a lace paper doily and at their feet was a pale blue candle in a little brass holder. Another Christmas Eve we used a red Christmas tree candle (the old-fashioned, twisted kind) in a holder tied in a small branch of evergreen with a bright silver and red ribbon.

A cheery greeting card addressed to the patient on the Christmas breakfast tray starts the day right, and because Christmas morning is the traditional time to wake up and find the Christmas tree, we place on the tray a miniature tree of heavy green paper with a silver star at its peak and tiny stars on the tips of all the branches. Down in the branches are stickers representing all the cute little toys—drums, dolls, horns and candy canes. Then to personalize this tree, we hang on it a tiny red stocking with the patient's name written on it in white ink.

The Christmas dinner tray is the highlight of the day. Because this is the formal meal we keep the appointments formal. A sprig of real holly or mistletoe as a background for the place card and a holiday nut cup filled with Christmas dainties are always good. Last Christmas the menu booklet was made of bright red paper tied with green ribbon. Floating down the front cover were two silver cherubs and on the back cover was a beloved old Christmas carol. A little red or green Christmas tree candle is an appropriate decoration for the tray on Christmas night. Having the tray girl approach the bed with a candlelit tray especially appeals to the patient.

Easter offers numerous possibilities for the expression of one's imagination, especially in the coloring and decorating of eggs. Our coy, black-haired siren in her new Easter bonnet was a big favorite. Her black hair and eyes were India ink; her cheeks and lips were real rouge and lipstick, and the hat was a big circle of orchid crêpe paper lined with a lace doily and trimmed with streamers of yellow crêpe paper that matched the bow under her chin. Sophisticated Mr. Bunny in his stiff evening collar and bow tie had Dennison reenforcements for eyes, a bit of cotton for a nose, whiskers of heavy white paper, pink silk lined cardboard ears and a tie of oilcloth.

A little silk American flag is one of our favorite decorations for Fourth



WHATEVER you have to wash, scrub, or clean, be it marble floors, service linen or dishes, you will find a soap suited to the need at Sexton—one that will preserve the surface, clean satisfactorily and hygienically.

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of July, Memorial Day, Washington's Birthday, Lincoln's Birthday and, possibly, Columbus Day. For place cards on the Fourth of July we tie several of the tiniest fire crackers available with red, white and blue ribbon at the top of a small white folded card. The patient's name is printed in blue with red and blue capitals.

We used a similar idea for the New Year's Day tray, with a blue card that had silver bells tied at the top with silver ribbon. A New Year's toast to the patient was written on the card.

Thanksgiving dinner can get off to a gala start by sending the menu in booklet form with the tray. Bright orange paper folded and tied with brown satin ribbon can be used as the booklet. The front page may be brightened by a multicolored turkey sticker and the patient's name printed in brown ink at the bottom of the page. On the inside cover we write a greeting to the patient, such as, "We hope you enjoy our Thanksgiving dinner with us, Mrs. S———." Although personalizing each booklet takes much time, we find that it is especially appreciated.

The dinner menu with all its trimmings is printed on the inside page, and on the back of the booklet is an appropriate verse. Last year we used the familiar old classic, "Over the hills and far away, to Grandmother's house we go." The favor on the Thanksgiving tray was a fat little turkey made from a pine cone with a gorgeous tail of crêpe paper. Pipe cleaners formed the feet and neck and the head was made of red sealing wax.

There are so many days that are not holidays, however, that we decided that the patients needed a daily "brightener" with the tray. At the bottom of the daily selective menu that is sent to the patient we have printed a bit of poetry or prose. Because patients are often sensitive individuals, we are careful to select only such verses or thoughts as will give them some uplift or a laugh. They look forward to these "thoughts for the day" and many of them send them back to us with clever or amusing comments of their own written in. Others ask for extra menus.

An anniversary or a birthday away from home is usually not so much fun but when the patient receives a candle-lit birthday cake brought to him on a musical cake plate that is playing "Happy Birthday to You," celebrating in the hospital is more fun than he expected it to be. The floor supervisor keeps us informed of these dates and all the tray girls, pastry cooks and dietitians cooperate.

Food Cost Tables—Vegetables

GRACE STOWELL SAUNDERS

ASPARAGUS—Fresh

COSTS, AS PURCHASED

Large bunch—3 lbs.	.20	.22	.25	.27	.29	.30	.32	.35	.37	.39	.40	.42	.45	.47	.49	.50	
Large bunch—1 lb.	.0667	.0733	.0833	.09	.0967	.10	.1067	.1167	.1233	.13	.1333	.14	.15	.1567	.1633	.1667	
1 stalk (15 count per lb.)	.0044	.0049	.0056	.006	.0064	.0067	.0071	.0078	.0082	.0087	.0089	.0093	.01	.0104	.0109	.0111	
1 stalk (16 count per lb.)	.0042	.0046	.0052	.0056	.006	.0063	.0067	.0073	.0077	.0081	.0083	.0088	.0094	.0098	.0102	.0104	
1 stalk (17 count per lb.)	.0039	.0043	.0049	.0053	.0057	.0049	.0063	.0069	.0073	.0076	.0078	.0082	.0088	.0092	.0096	.0098	
1 stalk (18 count per lb.)	.0037	.0041	.0046	.005	.0054	.0056	.0059	.0065	.0069	.0072	.0074	.0078	.0083	.0087	.0091	.0093	
1 stalk (19 count per lb.)	.0035	.0039	.0044	.0047	.0051	.0053	.0056	.0061	.0065	.0068	.007	.0074	.0079	.0082	.0086	.0088	
1 stalk (20 count per lb.)	.0033	.0037	.0042	.0045	.0048	.005	.0053	.0058	.0062	.0065	.0067	.007	.0075	.0078	.0082	.0083	
1 stalk (28 count per lb.)	.0024	.0026	.003	.0032	.0036	.0038	.0038	.0042	.0044	.0046	.0048	.005	.0054	.0056	.0058	.006	

ASPARAGUS—Canned Green

COSTS, AS PURCHASED

No. 2, 2 dz. cans*	4.50	4.60	4.80	4.90	5.10	5.40	5.60	5.70	5.80	6.00	6.20	6.30	6.40	6.50	6.60	6.70	6.80	6.90	7.00	7.10	7.20
No. 2, 1 dz. cans	2.25	2.30	2.40	2.45	2.55	2.70	2.80	2.85	2.90	3.00	3.10	3.15	3.20	3.25	3.30	3.35	3.40	3.45	3.50	3.55	3.60
No. 2 can	.1875	.1917	.20	.2042	.2125	.225	.2333	.2375	.2417	.25	.2583	.2625	.2667	.2708	.275	.2792	.2833	.2875	.2917	.2958	.30
1 tip (25 count)	.0075	.0077	.008	.0082	.0085	.009	.0093	.0079	.0081	.0083	.0086	.0088	.0089	.009	.0092	.0093	.0113	.0115	.0117	.0118	.012
1 tip (30 count)	.0063	.0064	.0067	.0068	.0071	.0075	.0078	.0095	.0097	.01	.0103	.0105	.0107	.0108	.011	.0112	.0094	.0096	.0097	.0097	.01
1 tip (35 count)	.0054	.0055	.0057	.0058	.0061	.0064	.0067	.0068	.0069	.0071	.0074	.0075	.0076	.0077	.0079	.008	.0081	.0082	.0083	.0085	.0086
1 tip (40 count)	.0046	.0047	.005	.0051	.0053	.0056	.0058	.0059	.006	.0063	.0065	.0066	.0067	.0068	.0069	.007	.0071	.0072	.0073	.0074	.0075
1 tip (45 count)	.0042	.0043	.0044	.0045	.0047	.005	.0052	.0053	.0054	.0056	.0057	.0058	.0059	.006	.0061	.0062	.0063	.0064	.0065	.0066	.0067
1 tip (50 count)	.0038	.0038	.004	.0041	.0043	.0045	.0047	.0048	.0048	.005	.0052	.0053	.0053	.0054	.0055	.0056	.0057	.0058	.0058	.0059	.006
1 tip (55 count)	.0034	.0035	.0036	.0037	.0039	.0041	.0042	.0043	.0044	.0045	.0047	.0048	.0048	.0049	.005	.0051	.0052	.0052	.0053	.0054	.0055
1 tip (60 count)	.0031	.0032	.0033	.0034	.0035	.0038	.0039	.004	.004	.0042	.0043	.0044	.0044	.0045	.0046	.0047	.0047	.0048	.0049	.0049	.015

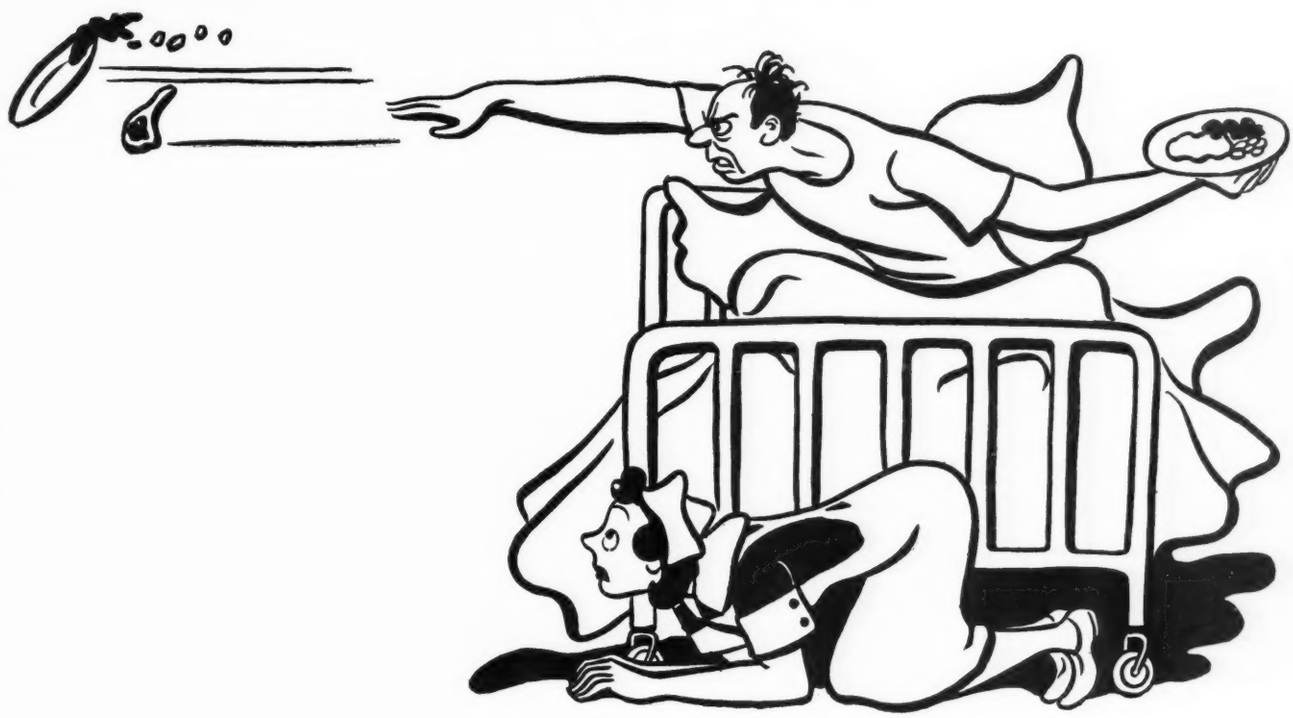
*A case contains 2 dozen cans.

ASPARAGUS TIPS—Frosted, All Green

COSTS, AS PURCHASED

Tiny—150-160 tips										
2½ lbs. (1 pkg.)	.85	.86	.87	.89	.90	.91	.92	.93	.94	.95
1 lb.	.34	.344	.384	.356	.36	.364	.368	.372	.376	.38
1 tip (155 average)	.0022	.0022	.0022	.0023	.0023	.0023	.0024	.0024	.0024	.0025
Medium—90-100 tips										
2½ lbs. (1 pkg.)	.98	.99	1.00	1.02	1.03	1.04	1.05	1.06	1.07	1.08
1 lb.	.392	.396	.40	.408	.412	.416	.42	.424	.428	.432
1 tip (100 average)	.0098	.0099	.01	.0102	.0103	.0104	.0105	.0106	.0107	.0108
Jumbo—50-60 tips										
2½ lbs. (1 pkg.)	.98	.99	1.00	1.02	1.03	1.04	1.05	1.06	1.07	1.08
1 lb.	.392	.396	.40	.408	.412	.416	.42	.424	.428	.432
1 tip (50 average)	.0078	.0079	.008	.0082	.0082	.0083	.0084	.0085	.0086	.0086

One case contains eight 40 oz. packages. Tips are 5 inches long.



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In Hospitals Large and Small . . .

Already, dietitians and administrators in hundreds of hospitals . . . as small as 30 beds, as large as 400 . . . are finding Birds Eye answers their food-operation problems.

Perhaps, Birds Eye Foods can prove to be *your* answer, too! At any rate, give them considerable thought. And, if there is any question you want answered, write . . .

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Facts on Fats and Oils

SIDNEY KAY

FATS and oils can be roughly divided in two groups. The solids are represented by the hydrogenated vegetable and animal fats, such as lard. Then there are the liquids, including all of the vegetable oils, such as corn, cottonseed, peanut, sesame, olive and soya. Each has its own characteristics and properties which form a most important part in the dietetic field.

Let us first take up the subject of fats, which includes the vegetable shortening that is used principally in the baking field. All shortenings by weight have approximately the same food value, *i.e.* about 98 per cent digestible.

Shortenings from both the animal and vegetable groups are often similar in appearance but, chemically, it is easy to distinguish one from the other. Animal, as well as vegetable, shortening consists of a mixture of various fatty ingredients, which determine whether it is a liquid oil, semiplastic, plastic (like lard) or hard (like stearine).

How Shortenings Are Made

Through the process of hydrogenation, modern science makes it possible to change a liquid shortening into an entirely hard shortening or into a shortening of any degree of plasticity between the two extremes. Intimate knowledge of the various kinds of fats and the hydrogenation process enables the shortening manufacturer to produce many shortenings which, for specific purposes, are superior to either the natural products or the compounds. Because of the usual difference in price between the "compounds" and the all hydrogenated shortenings a brief description of the differences in the make-up and manufacture is constructive and interesting.

Formerly, a compound vegetable shortening was a mixture of approximately 12 per cent hard hydrogenated oil with 88 per cent natural liquid oil. Today, this type of shortening has been greatly improved by the use of a much higher percentage of semihard hydrogenated oil and less natural liquid oil. An all hydrogenated shortening, however, is not a mixture of natural and hydrogenated oils but is an oil that has been hydrogenated to the point where it makes plastic shortening.

Few changes take place when compounds are made by mixing fats of various hardness with liquid cottonseed oil; a smooth plastic consistency is obtained by sudden chilling. The melted mixture of oil and fat is brought into contact with the cold surface of a so-called "chilling roll" whereupon the solid or semisolid fats suddenly crystallize and oil globules are enclosed between the crystals, the whole mixture becoming stable and of plastic consistency. Shortening produced on a chilling roll without any further manipulation, however, does not have a pleasing appearance and is not of uniform consistency because all of the shortening does not freeze to the same extent. Therefore, the manufacturer proceeds to plasticize the shortening by agitation as it drops from the chilling roll. This process greatly improves the color and gives the shortening an improved plasticity, thereby making it better adapted to the baker's needs. This type of shortening usually has a higher melting point than the all hydrogenated type but, because of the liquid oil present, it does not have the ability to resist rancidity as well as the all hydrogenated shortening. It also has poor water absorbing qualities and cannot be compared to the all hydrogenated type for cake production. It is, however, adaptable to bread baking and to all yeast strained doughs.

Cake Shortening

The all hydrogenated shortening is not a compound or mixture of hard or semihard hydrogenated oil and liquid oil, because all of it has gone through the hydrogenation process which changes the entire make-up of the oil. This process is carefully controlled and the manufacturer today is in a position to produce an all hydrogenated shortening of any degree of hardness or of melting point. The melting point will usually run between 100° F. and 107° F., considerably lower than that of the compounds. This type of shortening is quite popular with bakers, especially for cake production. Briefly, the reasons are as follows:

1. The creaming quality of an all hydrogenated shortening is superior to that of a compound, especially in the presence of water. Not only will the all hydrogenated shortening cream better when emulsified with water, but it has the ability to retain this moisture for a longer time after the cake is baked. This characteristic is of importance when the cake is stored and longer freshness is essential.

2. Depending upon the skill with which the fat is deodorized, shortening of this nature is usually free from odors and is neutral in taste. As a rule much more care is taken with the all hydrogenated fats than with the others.

Characteristics of Various Oils

Oils are included under the heading of liquid fats and of this group the most widely known are corn, cottonseed, peanut, olive, sesame and soya bean. The oils are used most widely in making salad dressings. They are also used in hydrogenation to make solid fats, in shortening, baking and general frying work.

Each of these oils has its own individual characteristics. With the exception of olive oil, which has a distinctive flavor, the other oils are usually tasteless, or if they have any flavor, it may be described as a slightly nutty one. Cottonseed oil is produced in the largest quantities and for this reason is the most widely used. Peanut oil, because it is the closest to olive oil in general characteristics, is often used to blend with olive oil to reduce its cost. It is one of the finest of the deep frying agents, but is not widely used because it is usually higher in price than the other oils. When straight peanut oil is used in mayonnaise care must be taken to see that the finished product is not subjected to freezing temperatures because this will cause it to break. Corn oil is one of the best

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The Important Role of

Meat in the Dietary

RECENT ADVANCES in the science of nutrition substantiate the desirability of the daily ingestion of meat, which from time immemorial has been one of the principal components of the human dietary.

Containing all the known essential amino acids, the protein of meat not only satisfies growth requirements, but is readily utilized in repairing the constantly recurring wear and tear of tissue. Meat, as a daily component of the diet, amply bears a high share of the vitamin burden. Thiamin (B_1), riboflavin (G), and nicotinic acid (the pellagra-preventive factor)—the most essential vitamins of the B complex—are supplied in nutritionally important amounts. Hence meat contributes a high percentage of the daily requirements for these accessory food factors in which many modern-day dietaries are likely to be deficient. Meat also provides minerals associated with vital body processes, notably phosphorus and iron, both of which must be supplied continuously to the organism, the one for bone, the other for hemoglobin formation.

With the better understanding of meat and its contribution to nutritional requirements has come the realization that meat with its rich protein content must be regarded as an important daily dietary factor not only in health but also for the organism burdened with febrile, wasting and many other chronic affections such as tuberculosis, hypertension, arteriosclerosis, arthritis, hepatic derangements, nephrosis and nephritis.

Chanutin, Alfred, and Ludewig, Stephan: Experimental Renal Insufficiency Produced by Partial Nephrectomy, Arch. Int. Med. *64*:747 (Oct.) 1939.

Editorial: Cellular Respiration, J. A. M. A. *113*:417 (July 29) 1939.

Goudsmit, Arnoldus, Jr., and Binger, M. W.: Treatment of Nephrotic Edema, J. A. M. A. *114*:2515 (June 29) 1940.

Stengel, A., Jr., and Ravdin, I. S.: The Maintenance of Nutrition in Surgical Patients, with a Description of the Orojejunal Method of Feeding, Surgery *6*:511 (Oct.) 1939.

Tuohy, E. L.: A Proper and Adequate Protein Diet for Elderly People, Minnesota Med. *23*:313 (May) 1940.

Whipple, G. H.: Production, Utilization, and Significance of Blood Proteins (Annual Lecture of the Minnesota Pathological Society), Journal-Lancet *59*:482 (Nov.) 1939.

The Seal of Acceptance denotes that the statements made in this advertisement are acceptable to the Council on Foods of the American Medical Association.

American Meat Institute

CHICAGO

Time and Temperatures for Cooking Various Foods

Food	*Temperature*	*Time (Minutes)*
Saratoga chips	325° F.	5- 8
French fried potatoes (blanching)	365-375° F.	5-12
French fried potatoes (browning)	395-400° F.	2
Shoestring or julienne potatoes	325-335° F.	3-10
Latticed potatoes	350-375° F.	3-10
Scuffle potatoes (blanching)	225-240° F.	5- 8
Scuffle potatoes (puffing)	425° F.	1
Perch and smelts	370° F.	3- 5
Fillets	370° F.	4- 6
Fish cakes, croquettes	390° F.	1
Oysters	390° F.	1
Cutlets and breaded chops	360-400° F.	5- 8
Chicken in batter	375° F.	5- 8
Doughnuts	385-390° F.	3- 5
Fritters	370-380° F.	2- 5
Frankfurters	270° F.	1
Chinese noodles	380° F.	1
Almonds	240° F.	4- 6
Cashews	275° F.	3- 5
Blanching, peanuts	300° F.	3- 5
Spanish peanuts	350° F.	3- 5
Clams	380° F.	1½

all round oils because it freezes slowly and can be heated to higher temperatures.

Soya bean oil is rapidly coming to the front. Until recent years the quantity of this oil produced was quite small and it was used chiefly in the manufacture of paints. Since the farmer has found that soya bean is a fine replacement crop it has been planted more frequently and the oils are finding their way into the edible fields. Care must be taken in the selection of soya bean oil because the refining process has not yet been perfected to the point of overcoming rancidity completely.

One of the widest uses for the oils and fats is in the preparation of fried foods and it is interesting to note what steps should be taken to ensure the best possible results. Hydrogenated fats are used for frying in a great many kitchens because the fat is also used in baking and shortening. There are four general considerations to be watched in frying foods: (1) the kinds of fat used; (2) the preparation of the food; (3) the methods used, and (4) the care of the fat and frying equipment.

It is essential the fat must be able to stand up under the extreme temperatures encountered in deep frying. Smoking indicates the breaking down of the fat. Exposure to air and to moisture from foods fried in it causes fat to absorb oxygen and become rancid, and a good fat will resist the tendency to rancid tastes and odors. A fat must be neutral in flavor and odor so that it will not impart objectionable flavors to foods fried in it. The melting point of a fat should be such that foods fried in it are easily digestible.

A great deal depends upon how carefully foods are prepared for general frying purposes. If a food is dipped in cracker or bread crumbs, care should be taken to apply them as smoothly and evenly as possible. Any excess crumbs should be removed before frying. Some foods, especially those containing fat or protein, naturally turn brown more easily than others. A coating of eggs, bread crumbs and milk can be applied to food lacking these two constituents in order to produce a brown surface.

Excessive moisture on the surface of the food material will prevent the desired browning action, and a large surplus of moisture is likely to produce spattering and foaming. It is also essential that the individual pieces to be fried be of nearly uniform size. Otherwise, smaller pieces will be cooked through or even burned before the larger pieces are done.

In general, sufficient fat should be used to cover completely the food to be fried. At the same time the kettle should not be filled so full that the hot fat will bubble over the top when the food is added. Adding too much food at one time will cause bubbling over and at the same time lower the temperature of the fat sufficiently to give poor results. Whether gas or electricity is used it pays to have thermostatic control to maintain the desired temperature, especially if a considerable amount of continuous frying is to be done.

A deep frying wire basket has many advantages because it permits the food to be immersed slowly in the fat. This prevents sudden cooling with consequent high fat absorption. If the bubbling becomes too severe the basket can be withdrawn until it subsides. If a gas fired kettle is used the flame should not strike the outside of the kettle. Neither the kettle nor the fat should be allowed to overheat when not in use because excessive heat injures the fat.

In all frying work kettles and other frying equipment must be cleaned thoroughly at regular intervals. If a kettle is not cleaned the fat will decompose quickly. Fresh fat placed in a dirty kettle will become dark in color and strong in odor much more rapidly than it will if it is placed in a thoroughly cleaned kettle.

The right frying temperature can be determined for any food by a few trials. If the fat is not hot enough, the food will cook through slowly. It will soak up much fat and the surface will not brown properly. Fat should never be allowed to drop below 300° F. while in active use; on the other hand, it must not be too hot because the food will brown on the outside and not be cooked on the inside. Doughnuts can be best fried in fat that is heated to from 365° F. to 390° F.; small potatoes, from 380° F. to 400° F., and thin materials, like potato chips, from 325° F. to 335° F. Fat should be strained at least once a day through four or five thicknesses of cheesecloth.

The length of time required to fry foods depends wholly on the amount to be fried at one time. The accompanying table shows the temperatures and cooking time recommended.

Finally, it is necessary to select a fat that will resist both oxidation and hydrolysis. Oxidation is the combining of the fat with the oxygen in the air and results in rancidity and gumming. Hydrolysis is the combining of fat with water and causes the development of free fatty acid in the fat. For these two reasons it is essential to start with the finest type of oil or fat available and not be guided in the initial purchase by the fact that another type is cheaper in price. Too often the one that is cheap at the start will be more expensive in the end.

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September Menus for the Small Hospital

Mrs. A. J. Iannone

Dietitian, New Jersey Orthopedic Hospital, Orange, N. J.

	Breakfast		Luncheon or Supper				
Day	Fruit	Main Dish	Soup or Appetizer	Main Dish	Potatoes or Substitute	Vegetable or Salad	Dessert
1.	Orange Halves	Soft Cooked Eggs, Toast	Beef Broth With Rice	Meat Loaf	Creamed Potatoes	Salad Greens With Tomatoes	Fresh Pears
2.	One Half Grapefruit	Scrambled Eggs, Hot Rolls		Creamed Chipped Beef	Boiled Rice	Coleslaw	Sliced Pineapple
3.	Stewed Apricots	French Toast With Syrup	Chicken Broth With Noodles	Grilled Cheese Sandwich With Tomato and Bacon			Concord Grapes
4.	Fresh Pears	Broiled Bacon, Poached Eggs		American Chop Suey		Salad Greens	Baked Apples
5.	Stewed Prunes	Hot Muffins With Jam	Relishes	Eggs à la King on Toast		Grapefruit and Cream Cheese Salad	Date Cup Cakes
6.	Tomato Juice	Soft Cooked Eggs, Toast	New York Clam Chowder	Cheese Fondue		Romaine, French Dressing	Fruit Cup
7.	Orange Halves	Broiled Bacon, Rolls		Stuffed Baked Acorn Squash	Nut Bread	Lettuce, Russian Dressing	Honey Dew Melon
8.	One Half Grapefruit	Hot Rolls With Jelly		Luncheon Loaf	Potato Chips	Lettuce With Sliced Eggs and Tomato	Canned Plums
9.	Stewed Pears	French Toast With Syrup	Turkey Soup	Corned Beef Hash	Corn Bread	Mustard Pickle	Fresh Apples, Cookies, Cider
10.	Apricot Halves	Scrambled Eggs, Toast		Italian Spaghetti and Meat Balls		Chicory, Cucumbers, Tomatoes, French Dressing	Tokay Grapes
11.	Stewed Prunes	Broiled Bacon, Hot Muffins	Split Pea Soup	Bacon and Tomato Sandwich		Pickles and Olives	Baked Custard
12.	Orange Halves	Soft Cooked Eggs, Toast		Lamb Chops	Buttered Noodle Fritters	Cauliflower	Fruit Gelatin
13.	Pineapple Juice	Wheat Cakes With Syrup	Fruit Juice	Tuna Fish Salad	Potato Chips		Steamed Pudding, Hard Sauce
14.	Applesauce	Poached Eggs, Bacon		Meat Pie With Vegetables		Chicory, Sliced Tomatoes, French Dressing	Baked Coconut Custard
15.	Whole Banana	Hot Muffins With Jam	Candied Oranges	Hot Duck Sandwiches		Lettuce, Russian Dressing	Canned Apricot Halves
16.	Grapefruit Juice	Scrambled Eggs, Toast	Vegetable Soup	Asparagus on Toast			Baked Pears
17.	Stewed Apricots	Soft Cooked Eggs, Toast	Tomato Bouillon	Chicken Salad		Sliced Tomatoes	Jelly Doughnuts
18.	Orange Halves	Broiled Bacon, Rolls		Chipped Beef Creole		Vegetable Salad	Whipped Gelatin
19.	One Half Grapefruit	Poached Eggs on Toast		Chicken and Noodles		Coleslaw With Sliced Tomatoes	Royal Anne Cherries
20.	Applesauce	Hot Muffins With Jam	Broth With Rice	Scrambled Eggs		Broiled Sliced Tomatoes on Toast	Sliced Peaches
21.	Stewed Prunes	Omelet With Toast	Chicken Soup	Welsh Rabbit With Bacon Curls on Toast		Vegetable Salad, French Dressing	Sliced Bananas With Custard Sauce
22.	Pineapple and Orange Juice	Soft Cooked Eggs, Broiled Bacon		Cold Lamb	Noodles With Tomato Sauce	Lettuce, Russian Dressing	Fresh Pineapple
23.	One Half Grapefruit	French Toast With Jelly		Spanish Omelet		Pineapple and Cream Cheese Salad	Chocolate Eclair
24.	Orange Halves	Scrambled Eggs, Toast		Veal Salad		Sliced Tomatoes	Gingerbread With Icing
25.	Stewed Apricots	Soft Cooked Eggs, Hot Rolls		Cold Corned Beef, Cold Meat Loaf	Potato Chips	Asparagus Salad	Cantaloupe
26.	Applesauce	Broiled Bacon, Toast		Baked Omelet	Hashed Brown Potatoes	Sautéed Mushrooms	Whole Peeled Apricots
27.	Pineapple Juice	Wheat Cakes With Syrup		Toasted Tomato and Cheese Sandwich		Raw Carrot and Celery Salad	Mixed Fresh Fruit
28.	Stewed Pears	Omelet With Jelly		Chipped Beef Creole		Vegetable Salad	Fruit Gelatin
29.	Stewed Prunes	Scrambled Eggs, Toast		Hamburg Steak	Baked Potatoes	Sliced Tomatoes	Concord Grapes
30.	Whole Banana	Broiled Bacon, Hot Muffins	Cream of Corn Soup			Prunes with Cream Cheese and Grapefruit Salad, French Dressing	Sliced Fresh Peaches

Recipes will be supplied on request by Anna E. Boller, The Modern Hospital, Chicago. Space precludes listing of cereals, several varieties of which are always offered for breakfast.

Fair Play for Floor Brushes

CHARLES ETHINGTON

BEFORE considering the maintenance of a floor brush, we must first of all select a brush that contains good workmanship and good materials. The purchaser should know about the various kinds of hog bristles or imitation bristles that are used in floor brushes. Detailed specifications should be prepared, stating the kind of bristles, size of brush, number of holes in the outside and inside rows and the depth and diameter of the holes. The specifications should also state that the brush be cement set and hand pegged.

In cheaper brushes, such as the staple set brush, the tufts eventually start falling out and the brush has to be discarded. A brush of the latter type proves far more expensive over a period of time than the brush purchased on the specifications mentioned.

Assuming that a 100 per cent hog bristle brush has been purchased based on the specifications and that a 12 inch brush has been issued for use, let us now consider the care of this brush. One of the first things the employe should know is that this brush represents an investment of approximately $10. Realizing that money saved on supplies may be used to increase his salary, the porter will take better care of the brush than if he does not know its value.

The following routines should be observed to maintain a floor brush: (1) The worker starts using the new

Fig. 1 (right) is a brush in which the bristles extend above the main part of the brush, because they have become matted.

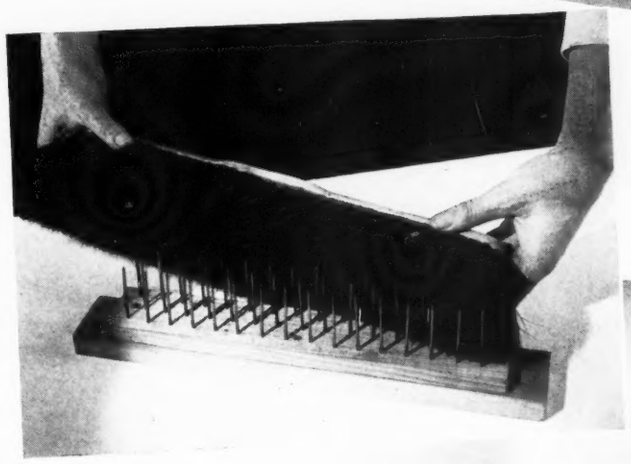


Fig. 2 (above) is a brush comb made of white pine board and sixteenpenny nails. Fig. 3 (right) — A bristle brush must be washed once every two or three weeks. Fig. 4 (below) is an attachment for holding the handle in place after the threads in the block have become worn.

Mr. Ethington is clerk of the board of education, Enid, Okla.

brush on smooth floors; (2) after sweeping, he hangs the brush up instead of setting it on the floor where the bristles bend and become matted; (3) he changes the handle at least once each week from one side of the block to the other, so that the brush will wear evenly; (4) he does not ride the brush, as this, too, causes it to wear unevenly; (5) he combs the brush each week to keep the bristles straight, and (6) he washes it every two or three weeks to remove fine particles of dust that cannot be shaken out. This also cleans and sterilizes the brush.

There is a great difference between a trained and an untrained employe and it is easy to tell which a hospital has by looking at the condition of the floor brushes. In figure 1 it will be noted that a number of bristles extend from ½ to 1½ inches above the main part of the brush. This condition is due to the fact that the brush was never combed and the bristles became matted. If the porter started to sweep with this brush he would cut off all of the longest bristles in the first sweeping.

A comb can be made out of white pine board, 1 by 3 by 16 inches (or shorter), with sixteenpenny nails driven in from the bottom and spaced from ½ to ¾ inches apart. There should be at least three rows of nails and they should be staggered. This board can be screwed down to the work bench where it will be handy.

In combing a brush (see figure 2), always begin by combing a small portion at one end. Continue across the brush until you are able to pull the whole brush through at the same time.

A floor brush is a filthy tool if it is not properly cared for. In order to keep life in a bristle brush it should be washed (figure 3) at least every two or three weeks with soap and lukewarm water and then rinsed thoroughly. This cleans out all the fine particles of dust and dirt that cannot be shaken out of the brush. A brush properly washed and combed will sweep cleaner and last twice as long as one that is never washed and combed.

Thousands of dollars worth of brushes are discarded annually because the threads in the hole of the block have become worn or broken. These may be placed back in service by use of an aluminum attachment (figure 4); it is oval shaped and fits over the block with a bolt running through the block to told the attachment firmly. This attachment should be reversed on the block each week, so the brush will wear evenly. The attachment, complete with bolt and wing nut, costs only a few cents and lasts indefinitely.

When a brush becomes worn down to where there is only 2 inches of bristles extending out of the block, it may be used on the rougher floors and on the sidewalks. When only about 1 inch of bristle extends out of the block, it can be used for a scrub brush or to apply roofing material. When the brush has worn down to where there is only a ¼ inch of bristle extending out of the block, the porter can then use this block for his slip on dust mop heads.

THE HOUSEKEEPER'S CORNER

• There is a right and wrong to floor mopping as there is to everything else. When floors are mopped, we were told the other day, the most efficient method is to use two mops and two pails, one mop and pail for applying the cleaner, and the other mop and pail for rinsing the floor. Frequently, much of the surface dirt on the floors can be removed before mopping by brushing the floor with a hair push brush.

Here is the procedure as described step by step. First, put one pint of maintenance material in a pail, fill the pail two thirds full of water and stir well. Second, plunge the mop to the bottom of the pail at each application in order to obtain all the advantages of the cleaner. Third, mop in the usual way, *i.e.* about 50 square feet at a time. Fourth, rinse thoroughly with clean water and a clean, well-wrung mop. Fifth, should the floors be badly soiled, maintenance cleaning material may be sprinkled directly on them. The surface is then mopped and rinsed.

• Large canvas bags are used at Albany Hospital, Albany, N. Y., for conveying all linen from a contaminated room or ward to the laundry. It is then washed separately. The clean linen is taken to the linen room, sorted in tiers of sheets, hand towels and gowns, and as the written requisitions come in from the supervisors about the house, the orders are filled and sent in wire containers that are wheeled to the rooms and wards. These containers are spaced to accommodate pieces of various sizes and are a great help in distribution. A certain amount of linen for emergencies is stored on each floor. Soiled linen goes directly to the laundry by way of linen chutes from every floor and ward.

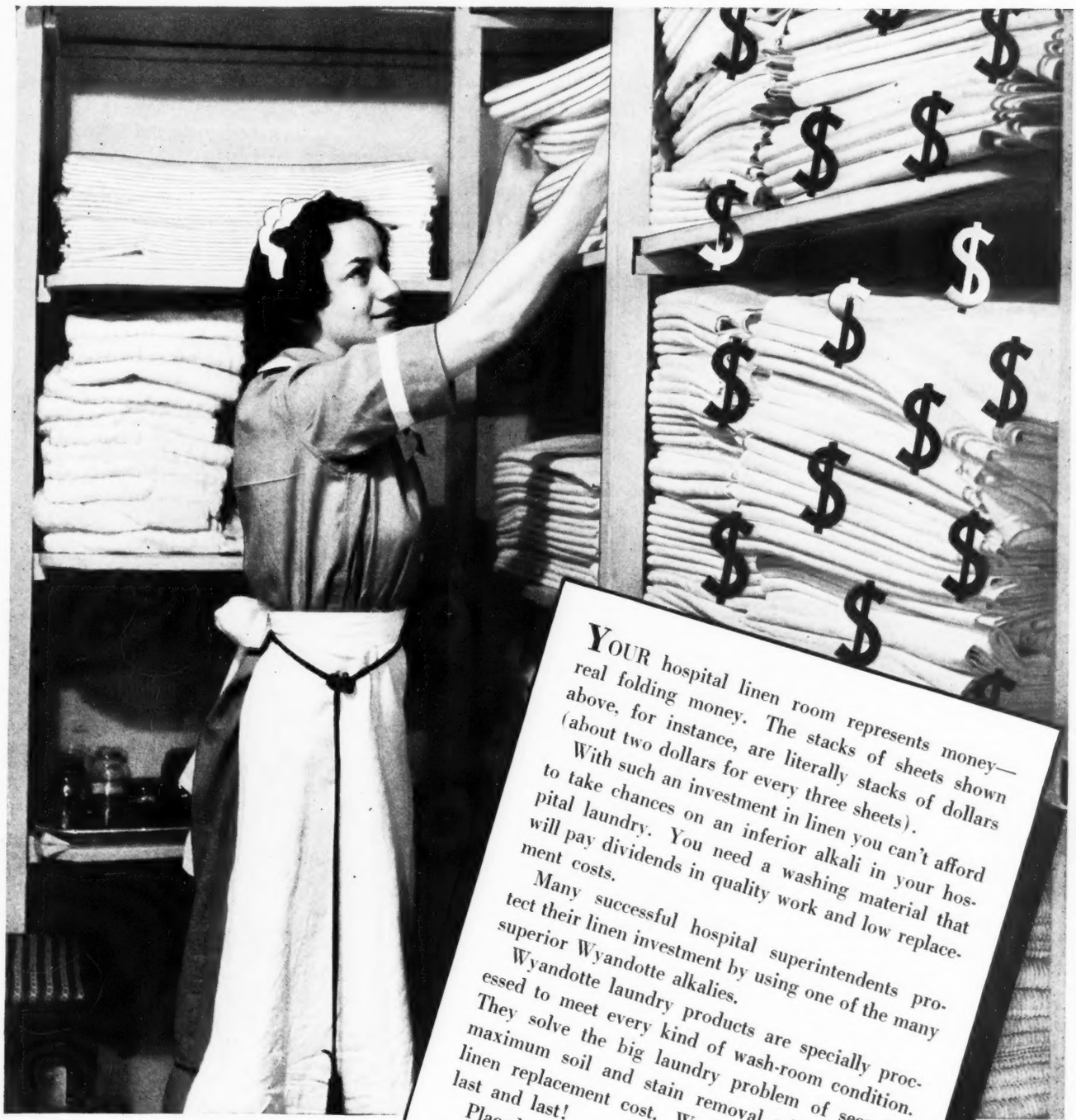
Althea C. Berry, executive housekeeper, is not responsible for the laundry and linen room but keeps under the glass of her desk a list of stain removers which the laundry uses.

• Window shades are a great headache to every housekeeper. Either they have a cord off (by the way, patients often tie their home-going packages with the window cords) or the edges are frayed or the hem is partly ripped and the stick is likely to fall out any minute or they are soiled. On her daily rounds of note taking, Miss Berry almost always has several notations, "shades to repair." "If you can buy washable shade material, by all means do so," she advises. This material, while more expensive in the beginning, pays over and over for the extra charge. A sponge soaked in gentle suds will take off all grime and smoke and will not leave streaks. Unroll the shade and place it on the floor or a large table, sponge both sides and hang it again in the window to dry."

• Long life for mops is assured by tying a knot in the ends of the individual strands. This seems to strengthen them and also to produce less lint on the floor after mopping. In fact, we are told on good authority that it will extend the life of the mop approximately 300 per cent and, contrary to the opinion of some, these knots in the end of the mop strands do not hinder wringing.

From the same authority comes word that if the shoulder of the broom handle is beveled before being screwed into the stock, the handle will not be so likely to break at this point. In this connection, a hair broom tends to flip the dust, whereas a part bristle broom pushes the dirt ahead.

Have you ever tried removing gum by using spirits of turpentine? It rolls off the surface and is not sticky.



You're looking at stacks of money

YOUR hospital linen room represents money—real folding money. The stacks of sheets shown above, for instance, are literally stacks of dollars (about two dollars for every three sheets).

With such an investment in linen you can't afford to take chances on an inferior alkali in your hospital laundry. You need a washing material that will pay dividends in quality work and low replacement costs.

Many successful hospital superintendents protect their linen investment by using one of the many superior Wyandotte alkalies.

Wyandotte laundry products are specially processed to meet every kind of wash-room condition. They solve the big laundry problem of securing maximum soil and stain removal with minimum linen replacement cost. Wyandotte washed linens last and last!

Placed against the original cost of your linen, the cost for the washing material is microscopic. Your Wyandotte Representative will be glad to show you the Wyandotte product that will make your laundry pay increasing dividends. Write for free booklet—*Simplified Cleaning For Hospitals.*

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Standardizing for Economy

ISABEL KIPPEN

THE purpose of the pharmacy is to compound and dispense medications for the care and treatment of the patients. A department that is centrally located and adequately equipped facilitates the efficiency and dispatch with which these preparations are supplied. The prescription department should be arranged in the pharmacy with a convenient dispensing window and handy telephone connections because these are the two channels of communication with the rest of the institution.

The standardization of the stock in the prescription department by means of a formulary or a prepared list of ordinary drugs and dressings is a natural development.

Such a standard, drawn up by the combined efforts of the pharmacist and the physician, provides for rational therapy in the treatment of patients. The compilation and use of a formulary constitute a simple and efficient means of putting into operation a drug policy developed by the pharmacy committee. The pharmacist should be an active member of this committee and thus keep pace with the changing trends in treatment and medication. As a result of this association he can have desired preparations readily available and yet not be overstocked in items that have decreased in popularity.

Pharmacist and Formulary

A formulary that is compiled by both the medical staff and the pharmacist should not tend to be limiting to either. The pharmacy committee should include representatives from the major departments of the hospital, such as surgery, medicine, obstetrics and pediatrics, and the selection of the standard medications to be used in the treatment of patients should be determined by this group. Revisions demanded by the medical staff will necessarily keep the formulary up to date. The knowledge and professional ability of the pharmacist should be given scope for application. He should contribute an opinion on such matters as the selection of the proper and most palatable vehicle to be used; the elimination of incompatabilities, and the best form of administration.

Prescription Economics

The pharmacist should seek rather than avoid cooperation with other departments of the hospital, especially in determining the most economical and the most practical methods of supplying medications to patients. He is better able to establish this relationship if some accepted standard has been developed.

The efficiency of the prescription department in general is increased with the standardization of the stock. The arrangement of the stock becomes simplified owing to the elimination of proprietaries. Systematic replenishing of preparations and provision for proper storage can be planned in advance. The greater part of the work in the prescription department can be performed by dispensing these formulary preparations for basket filling and as general uitility division supplies. Individual prescriptions are minimized and for the most part are dispensed to patients who are leaving the hospital and to the personnel. Further standardization into specified quantity units, as well as the use of printed labels, simplifies both dispensing and record keeping. Drug delivery and the pickup of empty containers can be combined by filling the ward requisitions with these standard units that are ready for dispensing and by collecting the empty containers when delivery is made.

The stock of preparations and supplies on the divisions ceases to be a problem because the individual prescription and the accumulation of proprietary preparations are eliminated to a large extent by the use of formulary preparations. Uniformity of stock makes inspection by the pharmacist an easy routine, and the stock itself is kept fresh and under control. Records are easy to keep. A total of the day's requisition slips from the various wards, the pricing of which is not a difficult task when standard units are dispensed, enables the pharmacist to keep a complete cost of operation per division on a daily, monthly or yearly basis. A comparison of these totals with the record of patient days supplies interesting information with regard to misuse and waste.

Control of Narcotics

The control of narcotics readily lends itself to standardization. It is best to invest the responsibility for both the dispensing and record keeping in one person, preferably one of the registered pharmacists. Narcotic tablets, particularly those that are frequently used, should be purchased in large containers and then apportioned into smaller units. If the transfer of a bottle of 500 tablets into 20 small bottles containing 25 tablets each can be made at one time, time is saved in dispensing, as well as in record keeping, and a rapid inventory is always ascertainable.

It is essential to keep accurate records in order to meet legal requirements and the method of keeping these records should be left to the judgment of the pharmacist in cooperation with the nursing staff. The most popular system of recording narcotic stocks is the perpetual inventory. The important factor is to have a complete check of all the stock, both in the pharmacy and on the divisions, readily available at all times. Definite routine with speci-

The author is a graduate student of the department of pharmacy, Western Reserve University, Cleveland.

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fied times for issuance and delivery, as well as a fixed date each week or month for inventory, is a valuable time saver.

If the routine work that passes through the prescription department is performed in the most efficient manner possible, the pharmacist should be enabled to devote more time to the development of all the other subdivisions that fall within the jurisdiction of his department.

NOTES AND ABSTRACTS

By Carl C. Pfeiffer, M.D., Department of Pharmacology
University of Chicago

Bioassay of Liver Extract

In 1926 Minot and Murphy, working at Harvard, first advocated the use of liver therapy in pernicious anemia. Since that time great progress has been made in the preparation of potent liver concentrates which make it unnecessary for pernicious anemia patients to live almost exclusively on liver.

Theory

• Subsequent to this discovery Castle postulated his theory of the interaction of the "intrinsic factor" (possibly an enzyme that is present in normal human gastric juice and absent in the juice of a pernicious anemia patient) and the "extrinsic factor" (possibly a member of the B complex that is present in meats and certain food sources rich in proteins) with the resultant formation of the anti-anemic substance which is absorbed and stored in the liver. The anti-anemic factor acts on the bone marrow. The lack of this factor results in replacement of normal blood formation (erythropoiesis) by the pathological megaloblastic (fetal) type of hematopoiesis.

Attempts at experimental assay of liver preparations have attacked: (1) the diet (extrinsic factor); (2) the stomach (intrinsic factor), via gastrectomy; (3) the liver (storehouse), via partial hepatectomy and chronic liver damage, and (4) the bone marrow (factory), via toxic damage and exhaustion by excess blood destruction or loss. The results thus far are either negative or equivocal in nature and, therefore, a summary is in order.

Clinical Assay

• At the present time the only means of determining the potency of liver extract preparations is the clinical assay on a pernicious anemia patient in relapse. The irregular nature of the maintenance dose requirements makes this approach worthless for assay.

This important therapeutic discovery is an excellent example of how our ability to treat a disease may exceed our knowledge of its cause. The treatment has been so effective in eradicating the disease that scientists now have great difficulty in obtaining untreated patients for the assay of their extracts; hence, the feverish haste to discover a method for bioassay of the anti-pernicious anemia (A. P. A.) factor.

Animal Assay

• Attempts at experimental bioassay of the anti-anemic potency of liver preparations have for the greatest part met with no success. Reticulocyte responses subsequent to the injection of liver extracts have been reported in normal guinea pigs and pigeons maintained on special diets, but other inert substances will also produce a reticulocyte response.

The nutritional goat milk anemia in rats has been tried, but this does not respond to liver extract. Rabbits made anemic by injections of collargol saponin have been reported to respond to liver therapy. Combined deficient diets plus indole feeding in dogs produces a macrocytic anemia that responds to liver therapy. Deficient diet studies on the pig have resulted in macrocytic anemia plus neurological lesions in the spinal cord. This condition, although comparable to pernicious anemia, does not respond to liver. Recently, a Dutch worker reported that liver extract accelerated the migration rate of leukocytes in guinea pig bone marrow explants. In general, all of the positive findings reported in recent years have been too irregular in nature, nonspecific or unconfirmed.

Recent Fetal Studies

• The blood and bone marrow picture of typical pernicious anemia has been termed an embryonic recession of the blood forming elements. With this concept in mind several investigators recently have attempted to study the effects of liver extract on the blood picture of fetuses. Since the anti-anemia principle is stored in the liver, some workers have prepared extracts of fetal livers. Wintrobe working at Hopkins reported no potency for fetal pig liver extracts, whereas Wigodsky found that the livers of bovine fetuses possess anti-anemic activity upon assay in clinical material.

The injection of liver extract into pregnant rabbits and rats with blood studies of the fetuses (rabbits) and new-born has had negative results. Reimer, working in Germany, has found no effect of liver extract on the blood picture of the chick embryo before, during or after the anlage of the bone marrow. Within the last year, however, Jones at Buffalo has presented work which indicates that liver extract injections and the feeding of ventriculin (a pig stomach preparation) to pregnant rats have a pronounced effect in decreasing the cell diameters of the primitive red cells in the thirteen day fetus. Briese and Higgins at Mayo Clinic also reported that feeding ventriculin to pregnant rats decreases the mean red cell diameter of the new-born rat.

Recently, Stasney and Burns of New Orleans, working on the opossum fetus, have found that liver extract and gastric juice injections into these embryos decrease the mean corpuscular volume and diameter of the circulating red cells. The opossum is a marsupial and carries its young in a pouch. The intra-uterine life is just 13 days, and the fetuses spend approximately 75 days attached to a nipple in the pouch where they can be readily handled and treated. The positive findings reported are of great interest and, if they are confirmed by other workers, may point to the solution of the present troublesome problem of bioassay of the anti-anemic potency of liver extract.

Strychnine as a Stimulant

• Strychnine exerts its stimulant action almost entirely on the spinal cord. The lethal dose is relatively small, being less than 30 mgm., if given parenterally. The convulsions produced by strychnine are tetanic in character and death from asphyxia may ensue during a prolonged tonic spasm owing to the sustained, board-like rigidity of the respiratory muscles. Death may also occur in depression during the remission between convulsions. When convulsions appear, prompt treatment is necessary to save life. It is important to control the convulsions as soon as possible, and one may use chloroform or may administer a barbiturate intravenously for this purpose.

Strychnine has been regarded as a heart tonic but there is no evidence of a direct effect on the heart. By the stimulant action on the cord, strychnine does increase muscle tone and may thus increase venous return to the heart. At present strychnine is used mainly in "tonics" because of its stomachic quality and its effects on muscle tone.

THE Tree of Reputation grows slowly but sends its roots deep.

Urotropin, the S. & G. brand of methenamine, was destined to be an exception to this rule of natural development. Urotropin attained fame quickly when introduced into therapeutics, and has ever since held a firm and unassailable place in professional estimation as a urinary antiseptic. For nearly half a century, it has served well as an antiseptic for the treatment of pyelitis, cystitis and other urinary infections.

Urotropin is obtainable, sanitaped, in 5-grain tablets, 30 in a box; 7½-grain tablets, 20 in a box. Also in bottles of 50, 100, 500 and 1000 tablets. A request on your letterhead will bring a trial supply.

UROTROPIN

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News in Review

Reference Volume for Latin American Countries Being Published This Month

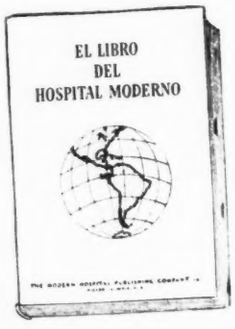
Under the title, *El Libro del Hospital Moderno,* The Modern Hospital Publishing Company, Inc., is publishing this month a reference book in Spanish on hospital organization, planning, administration and professional work for Latin American countries. The volume will contain more than 400 pages, including a directory of hospital products and a catalog section.

The editorial board of *El Libro del Hospital Moderno* consists of Dr. Otho F. Ball, Raymond P. Sloan and Alden B. Mills, respectively president, editor and managing editor of THE MODERN HOSPITAL; Dr. Arthur C. Bachmeyer, director, University of Chicago Clinics; Dr. Benjamin W. Black, medical director and superintendent of Alameda County Institutions, Oakland, Calif.; Dr. E. M. Bluestone, director, Montefiore Hospital, New York City; Dr. R. C. Buerki, superintendent, State of Wisconsin General Hospital, Madison, Wis.; Dr. Fred G. Carter, superintendent, St. Luke's Hospital, Cleveland; Dr. S. S. Goldwater, commissioner of hospitals, New York City; Felix Lamela, executive secretary, School of Tropical Medicine and University Hospital, San Juan, Puerto Rico; Dr. Malcolm T. MacEachern, associate director, American College of Surgeons, and Dr. Willard C. Rappleye, dean, College of Physicians and Surgeons, Columbia University.

A total of 34 articles will appear in the new book. All articles are in Spanish and most of them are illustrated with floor plans and photographs.

In the section on hospital philosophy and organization are the following articles: "International Aspects of Hospital Service," by Dr. Hugh S. Cumming, director, Pan American Sanitary Bureau, Washington, D. C.; "The Fundamentals of Hospital Service," by Dr. Goldwater, with an appreciation of Doctor Goldwater by Doctor Bluestone; "Surveying Hospital Needs," by Doctor Carter; "Organization of the Hospital," by Dr. Basil C. MacLean, director, Strong Memorial Hospital, Rochester. N. Y.

The longest section of the book is devoted to planning and construction. It contains: "Basic Principles of Hospital Construction," by Carl A. Erikson, Chicago; "Space Requirements for Small General Hospitals," by Charles F. Neergaard, New York City; "Ideal Contents and Arrangement of the Sickroom," by Doctor MacEachern; "The Entrance and Lobby," by Doctor Black and Will G. Corlett; "Planning Nurses' Stations," by Myron Hunt, Los Angeles; "Planning Surgical Facilities for the General Hospital," by Doctor Goldwater and Doctor J. J. Golub, director, Hospital for Joint Diseases, New York City; "Planning Maternity Departments," by Mr. Erikson; "Planning X-Ray Departments"; "Planning and Equipping Physical Therapy Departments," by Dr. John Coulter, associate professor of physical therapy of Northwestern University School of Medicine; "Planning Contagious Facilities," by Dr. D. L. Richardson, superintendent, Rhode Island Hospital, Providence; "Planning Hospital Pharmacies," by William A. Riley, Boston; "Planning Laboratories," by Dr. S. A. Levinson, director of laboratories, University of Illinois School of Medicine, Chicago;



"Organization and Administration of the Food Service Department," by Dr. Kate Daum, director of hospital food service department, University of Iowa; "Physical and Economic Aspects of Hospital Air Conditioning," by Dr. Albert G. Young, medical director of Corey Hill Hospital, Brookline, Mass.; "Planning for Chronic Disease Patients," by Dr. Bluestone; "Planning Against Infections," by Doctor Golub; "Hospital Lighting," by Dr. William H. Walsh, Chicago, and "Planning Laundries."

The section on administration contains the following articles: "Training Hospital Administrators," by Doctor Buerki; "Facilities, Services and Finances of American Hospitals," by C. Rufus Rorem, director, Commission on Hospital Service, American Hospital Association; "Hospital Standardization Programs," by Mr. Mills; "Books on Hospital Administration," and "Nutrition in the Hospital," by Doctor Daum.

In the section on clinical service are the following articles: "Asepsis in the Operating Room," by Dr. T. B. Magath, Mayo Clinic, Rochester, Minn.; "Prevention and Control of Infections in the Maternity Section," by Dr. Fred L. Adair, University of Chicago; "The Anesthesia Department," by Dr. E. A. Rovenstine, New York University; "Intravenous Administration of Fluids," by Dr. Paul H. Lavietes, Yale University, and "Blood Transfusions," by Dr. S. O. Levinson, Michael Reese Hospital, Chicago.

In a section on international cooperation, Dr. Bert W. Caldwell, executive secretary of the American Hospital Association, presents "An Appreciation of the Hospitals of Latin America" and Dr. Francis P. Corrigan, American ambassador to Venezuela, writes on "Hospital Organization in the American Republics."

Queens General Organizes Catastrophe Unit After Pattern of Bellevue's

A "catastrophe unit" of doctors and nurses on the staff of Queens General Hospital, New York City, to function instantaneously in the event of a major disaster in the borough of Queens, similar to the unit on duty at Bellevue Hospital which has already responded in four disasters of major proportions, has been announced by Dr. S. S. Goldwater, commissioner of hospitals.

Another unit, similar to the Bellevue emergency unit, is already on duty at Kings County Hospital and a fourth unit is in the process of organization at Morrisania Hospital in The Bronx.

At Queens, the emergency organization will consist of two alternating three squad units, with four doctors and four nurses to each squad. Two of the three squads are on active call, at all times, while one squad is kept in reserve.

Transportation facilities consist of a specially fitted truck supplemented by the hospital's ambulances.

West Virginia's Newest Plans

A half-million dollar Fairmont General Hospital was presented to the public of Fairmont, W. Va., on June 16 with appropriate ceremonies. A P.W.A. project, it has 150 beds, 25 bassinets and the latest in hospital equipment. Landscaping of the 7 acre site will begin in the autumn through a $45,000 W.P.A. project.

Three new ambulances have been purchased by St. John's Long Island City Hospital, Long Island City, N. Y., as a part of its $75,000 modernization program celebrating the fiftieth anniversary of the institution.

Circulatory Emergencies

Rapid drops in blood pressure in the course of surgery, hemorrhage or prolonged anesthesia, or following trauma, can be met promptly by subcutaneous administration of:

One Per Cent Sterile Solution of

NEO-SYNEPHRIN HYDROCHLORIDE

(laevo-alpha-hydroxy-beta-methyl-amino-3-hydroxy ethylbenzene hydrochloride)

Used prophylactically in conjunction with spinal anesthesia, Neo-Synephrin Hydrochloride is of value in preventing the acute hypotension so frequently encountered in this type of anesthesia.

Outstanding merits which qualify Neo-Synephrin Hydrochloride for combating acute low blood pressure are:

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- Slowing of pulse rate is the rule
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THE PRICE TAG SAID IT WAS A *bargain!*

$12.95 for a classy suit of clothes! A super-colossal bargain . . . until the first bit of rain proves otherwise. You can get "bargains" like this in floor treatments, too . . . but how quickly they fold up under the punishment of thousands of scuffing feet! Take the case of the building superintendent* in Seattle. Here's what he reports:

"The nationally known floor wax which we formerly used cost considerably less per gallon than Car-Na-Lac . . . but *half* the number of Car-Na-Lac applications now keep our floors in better condition with a net saving of 13% per month in material costs. To this must be added the 50% labor saving that also results from halving the number of applications."

All of which simply goes to prove that the best is usually cheapest in the long run.

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is radically different from all other self-polishing floor treatments. Easily applied with mop or cloth, it goes on like lacquer . . . leveling itself out to a brilliant, streakless luster. Dries like wax in less than 30 minutes . . . requires no buffing. Car-Na-Lac may be used on any smooth, sealed or fairly non-porous floor. Worn traffic lanes are easily repaired without showing overlaps . . . it is non-slippery, WATERPROOF. Car-Na-Lac outwears competitive waxes several times—in one case 5 to 1. Covers 1,500 to 2,000 sq. ft. per gallon.

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Free Demonstration On Your Own Floors

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Puerto Rico's New University Hospital

The University Hospital of the School of Tropical Medicine, San Juan, Puerto Rico, opened its doors in March, Dr. Willard C. Rappleye, dean of the College of Physicians and Surgeons, Columbia University, making the first admission. Doctor Rappleye is a member of the special board of trustees of the School of Tropical Medicine and happened to be on an official visit to the school at that time.

The first patient was Robert Gale, president of the Mid-West Forge Company of Cleveland, who, with his wife and son, was cruising in Caribbean waters on his yacht when he was taken ill.

The University Hospital has a capacity of 60 beds and functions as the department of clinical medicine and surgery of the School of Tropical Medicine, which is a research institution of the University of Puerto Rico under the auspices of Columbia University. It forms one of a group of five buildings.

The building, in architectural accord with the whole plant, follows the Spanish Renaissance style. Edgar Martin, Chicago architect, prepared the plans and specifications; Dr. William H. Walsh of Chicago was medical consultant.

Construction of the hospital was sponsored and supervised by the Puerto Rico Reconstruction Administration, a federal agency; it cost $350,000. The library and physiology buildings will be completed within the next few months at a cost of $500.000.

Placement Bureau Will Serve Social Work Field

The Social Work Vocational Bureau has opened an office at 122 East Twenty-Second Street, New York City, to provide a national placement and counseling service in the social work field. At present it offers service only in the case work fields, including medical and psychiatric social work, but plans later to extend service to group work and other social work fields as financing permits.

The Joint Vocational Service, which formerly rendered such service to the social work field, went out of existence in December, 1939. It has turned over to the new bureau all its files and individual personnel records.

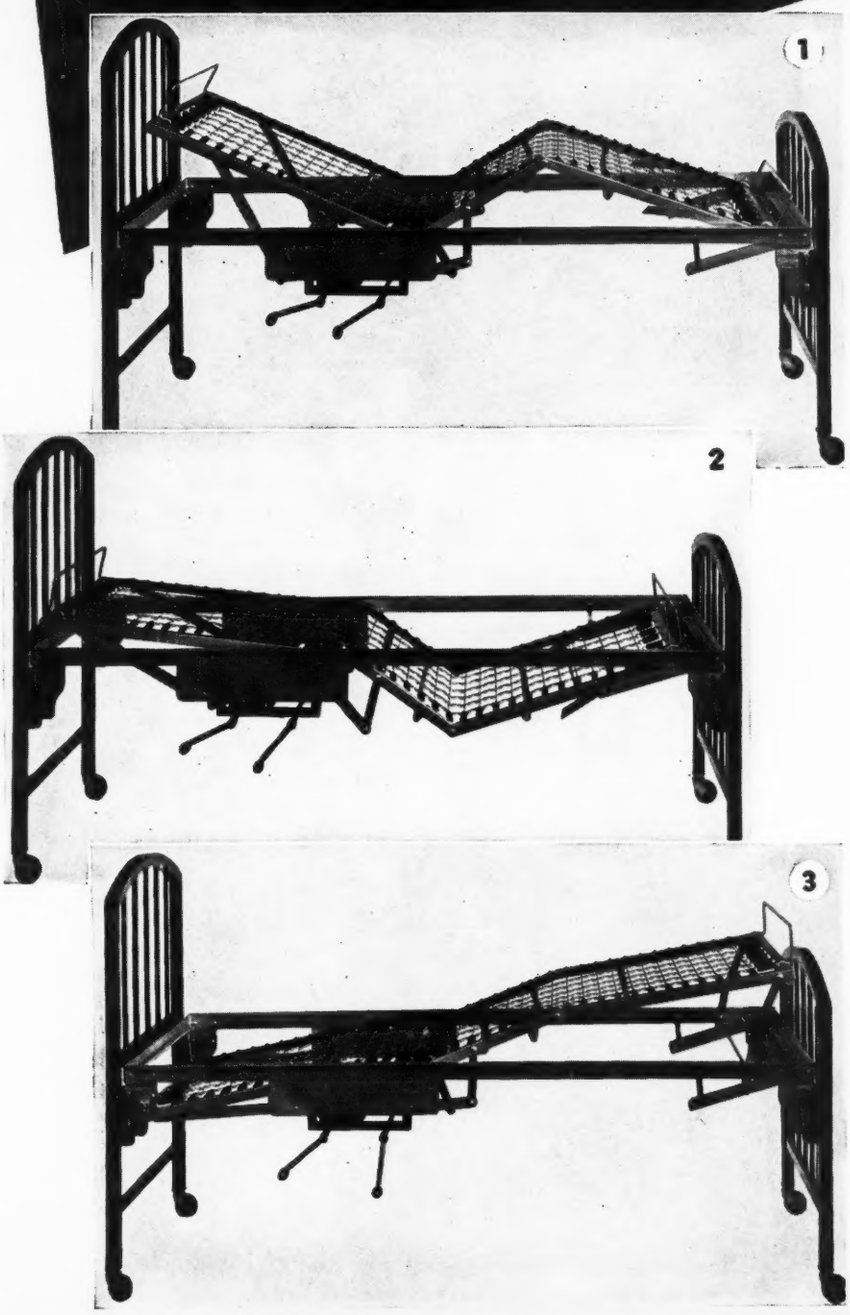
Michigan Awarded New Plant

The Commonwealth Fund's 1940 rural hospital is to be at Mount Pleasant, Mich., the county seat of Isabella County, in the central part of the state. The town has 8500 people and the service area of the hospital has something over 60,000. This fund now builds one rural hospital each year; three are in the West; seven in the South, and this makes the fourth award to the North.

Anniversary of Medical Exhibitors

The Medical Exhibitors Association recently celebrated its tenth anniversary at a dinner meeting in New York City. A number of hospital, medical and health officials were special guests. C. H. Wantz is the president.

A Long Needed HOSPITAL BED
Specially Designed for Hospital Service



The DR. URIE
"PATIENT COMFORT"
SPRING

- **Provides a New Degree of Patient Comfort and Convenience**
- **Permits Natural Position and Ease in Using Bed Pan**
- **Combines Practical Utility with Therapeutic Value**
- **Uses Standard Mattress and Linen**

The need for this bed is obvious. It is a great improvement over any other hospital bed available up to this time. It uses standard mattress and linen and is priced in line with ordinary beds. It combines, in a single unit, these valuable features, as illustrated in the three positions at the left:

1 Regular "Gatch" or Fowler position. Disappearing handles can be operated by nurse from either side of the bed.

2 Center section can be quickly lowered, permitting patient to use bed pan in a natural, relaxed position. Extra spring support at point of downward flexion helps to hold patient in proper position.

3 Head end may be lowered below body level without the use of blocks or extension casters. Lower end may be adjusted to four heights or cranked into any standard position, according to the need of the moment.

Exceptionally well built, the Dr. Urie Spring is structurally the equal of any standard bottom. Easy to clean and sterilize. Provides ample clearance for nurse's cot.

W-1703 (ILLUSTRATED) — Metal ends, roller grain finish, Walnut or Mahogany color, 3" casters, complete with Dr. Urie Spring - - - - - - - - $50.50
F.O.B. Utica, N. Y.

N-725 — Mattress to fit Dr. Urie Spring, each - - - - - - - - $12.50

Available with either Wood or Metal ends, in various other styles and finishes. Further details on request.

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Britain Can Use Your Extra Surgical Equipment in Base Hospital Work

Surgical instruments and equipment, even somewhat out of date, so long as they are in good condition, are being sought by the sub hospitals and hospital bases of England. The following list of supplies for which urgent appeals have been made is announced by Bundles for Britain, 484 Park Avenue, New York City.

25 Chevalier Jackson bronchoscopic outfits; 25 esophagoscopes with forceps and aspirators (Pilling); 50 sigmoidoscopes; 50 examination and catheterising cystoscopes; 50 bladder tretractors (Thomson Walker); 100 gastrojejunostomy clamps (Lane's twin); 100 intestinal straight clamps (Doyen 9 inch); 100 intestinal curved clamps (Doyen 9 inch).

5,000 artery forceps (Spencer Wells 5 inch); 1,000 artery forceps (Mayo Oschner 7 inch); 1,000 artery forceps (Halsted curved, fine points); 1,000 artery forceps (Kelly's curved); 5,000 dissecting forceps (plain 5 inch); 2,000 dissecting forceps (Tooth's 7 inch); 2,000 sinus forceps (Lister 5 inch); 500 towel clips (Backhaus 5 inch); 500 tissue forceps (Lane's); 500 tongue forceps (Corbould's); 500 forceps (Cheadle's); 500 bowl sterilizer forceps (Harrison's); 500 lung forceps (Duval's); 500 forceps, peritoneal (Allis').

500 scissors, abdominal straight (Mayo 7½ inch); 500 scissors, abdominal curved (Mayo 7½ inch); 500 syringes (Record 20 cc.); 500 syringes (Record 10 cc.); 500 syringes (Record 2cc.); 500 syringes (Record 1cc.); 100 plaster shears; 500 mouth gags; 10,000 yards Mackintosh rubber sheeting; 100 uterine vulsellum forceps (Teale's 8½ inch); 100 sets uterine dilators (Hegar's).

Coming Meetings

Aug. 12-13—National Hospital Association, Houston, Tex.
Aug. 11-24—Western Institute for Hospital Administrators, Stanford University, Stanford University, Calif.
Aug. 28-Sept. 11—Chicago Institute for Hospital Administrators, University of Chicago.
Sept. 1-15—American Hospital Association institute for Hospital Administrators, University of Chicago.
Sept. 2-14—New England Institute for Hospital Administrators, Harvard Medical School, Cambridge, Mass.
Sept. 2-6—American Congress of Physical Therapy, Hotel Statler, Cleveland.
Sept. 14-15—American Protestant Hospital Association, Boston.
Sept. 15-16—American College of Hospital Administrators, Hotel Statler, Boston.
Sept. 16-20—American Hospital Association, Hotel Statler, Boston.
Oct. 8-11—American Public Health Association, Book-Cadillac Hotel, Detroit.
Oct. 20-24—American Dietetic Association, Hotel Pennsylvania, New York.
Oct. 21-24—American College of Surgeons, Hospital Standardization Conference, Hotel Stevens, Chicago.
Oct. 21-Nov. 1—Southern Institute for Hospital Administrators, Tulane University, New Orleans.
Nov. 8-9—Kansas State Hospital Association, Lamer Hotel, Salina.
Nov. 13—Colorado Hospital Association, Denver.
Dec. 5—Utah State Hospital Association, Salt Lake City.
Feb. 26—Texas Catholic Hospital Conference, Galveston, Tex.
Feb. 27-Mar. 1—Texas Hospital Association, Galveston, Tex.
March 3-6—Association of Western Hospitals, Fairmont Hotel, San Francisco.
March 12-14—New England Hospital Assembly, Hotel Statler, Boston.
April 21-23—Iowa State Hospital Association.
April 24-25—Mid-West Hospital Association, Kansas City.

Boothbay Now Has 30 Bed Hospital

St. Andrews Hospital, West Boothbay Harbor, Me., has received a gift of a new three story unit, 40 by 15 feet. The addition will contain a delivery room, nursery and patients' rooms. This unit will increase the bed capacity of the hospital to 30, the American College of Surgeons' minimum capacity for approval. James H. Connor is the donor. The total cost of the addition has been estimated at several thousand dollars.

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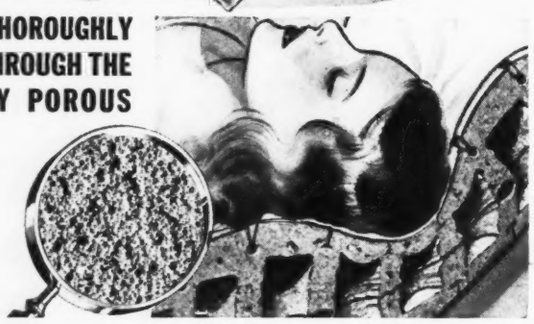
on the new
U. S. ROYAL FOAM
Pillow

. . . but doctors and hospitals are especially interested in its unusual

HYPO-ALLERGENIC
Quality!

EASILY AND THOROUGHLY STERILIZED THROUGH THE COMPLETELY POROUS TEXTURE.
WASHABLE!



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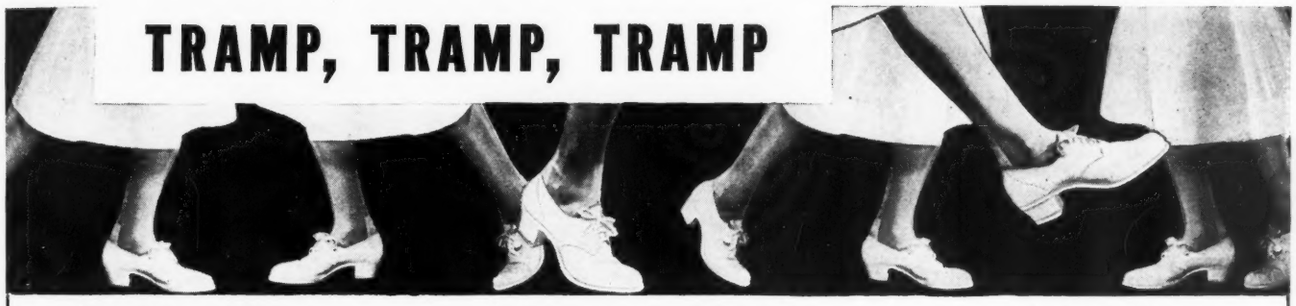
UNITED STATES RUBBER COMPANY
MISHAWAKA, INDIANA

TRAMP, TRAMP, TRAMP



Open the window ***Arrange the pillows*** **A glass of water**

Close the window **Bring another pillow**

DO YOUR NURSES CONSTANTLY LEAVE THEIR STATIONS FOR THIS SORT OF THING?

Two-thirds of nurses' trips to patients' bedsides are for non-nursing services. Trivial things like lowering shades, closing windows, bringing water, picking up objects.

"Connectacall", the modern two-way patient-and-nurse communicating system, enables the floor nurse to *supervise* every call, delegate each errand to others according to the service required and its urgency, without leaving her station.

It's the next thing to a private nurse for every patient!

Let Connecticut assist you in making a one-day survey of all nurses' calls in your hospital to show you how Connectacall can create new efficiencies in your nursing staff. There is no cost or obligation; it is part of Connecticut's free Planning Service.

Connecticut's new 72-page catalog of Hospital Signal Systems will be sent on request.

For advanced engineering put it up to "Connecticut"

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Doctors: TAKE A GOOD LOOK INTO MATTRESSES

. . . and you'll insist on

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FOR ALL YOUR PATIENTS

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MOLDED in one piece of pure, odorless, foam-whipped latex, U. S. Royal Foam Mattresses offer many new advantages. Better rest for patients through more even body support. Dust-repellent self-ventilation. More thorough permeation by sterilizing agents. Longer sag-free wear.

And, Doctor, a possible contribution to *your own* well-being and efficiency, through

SOUNDER SLEEP TONIGHT!

United States Rubber Company
MISHAWAKA INDIANA

European War Has Had No Ill Effect on Public Support of U. S. Hospitals

The effect of the European war on hospital support is in no way discouraging, judging from reports from two reliable sources.

The John Price Jones Corporation in a study of gifts and bequests in seven large cities during the first six months of 1940 found a slight decline in philanthropy in general but, in the health category which includes hospitals, an astounding increase had taken place over the first six months of 1939.

The 1940 figure for health is $7,259,045 in comparison with $2,851,598 in 1939. Another large gain came in gifts to foreign relief. Other categories showed a decline.

From Will, Folsom and Smith, Inc., comes an account of several oversubscribed hospital campaigns. The people of Taunton, Mass., subscribed $330,000 for the enlargement and improvement of Morton Hospital, 10 per cent more than the objective.

Lawrence, Mass., and neighboring towns guaranteed $230,000 for the betterment of three hospitals in the vicinity. This was 15 per cent more than the objective set by the institutions.

Citizens of Amsterdam, N. Y., pledged $142,000 in a campaign for improving one of the two hospitals in the community. The original goal was $115,000.

In Manchester, Conn., the sum of $190,000 has been subscribed for the enlargement of the community hospital, $175,000 being sought.

Two other New England hospitals have recently undertaken expansion programs. Weymouth Hospital, South Weymouth, Mass., is seeking $250,000 and the Hospital of St. Raphael, New Haven, Conn., is trying to get $500,000 to balance a new building budget that is scheduled to reach well over $1,000,000.

FAST, EFFICIENT PAGING of doctors, surgeons, nurses and others is greatly simplified. May be done from central control unit.
EMERGENCY CALLS—This system puts receiving room in instant touch with staff . . . permits swift handling of emergency cases.
QUICK KITCHEN CONTACT—Food orders from all floors may be quickly transmitted through the RCA Victor Hospital Sound System.
"It's Our LIFE LINE"
say Hospital Directors about
RCA VICTOR HOSPITAL SOUND SYSTEM
This outstanding system, available to hospitals of every size, saves time and money—and may help save lives! Assures instant communication with entire hospital staff, tremendously increases efficiency.
The RCA Victor Hospital Sound System plays a major part in the all-around efficiency of many hospitals from coast to coast. Pictures above show only some of the ways system may be used. There are many others as well. This amazingly flexible system is designed for hospitals of any size. Easily operated, the RCA Victor Hospital Sound System is one you can rely upon. Built by the only company in the world with complete experience in every phase of radio and sound, it is a high quality system which will serve you long and efficiently. A system you will find it pays to install. Full information on request. Address your inquiries to Commercial Sound Section, RCA Manufacturing Co., Inc., Camden, N. J.
For finer sound system performance—use RCA Tubes
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HOSPITAL SOUND SYSTEM
RCA Manufacturing Co., Inc., Camden, N. J. • A Service of the Radio Corporation of America

Yaglou Says Clothing Is Key to Air Comfort

The engineer's problem would be simplified and the expense of heating and cooling buildings would be greatly reduced if women would dress more warmly in winter and if men would take off their vests, coats and collars in summer, according to Prof. C. P. Yaglou of the Harvard School of Public Health.

Clothing habits chiefly, but constitutional differences as well, account for the disagreement between the sexes in the matter of comfort, this air conditioning authority states.

Under present conditions women need a temperature of 76° F. in winter, instead of the 70° preferred by men. In the summer buildings would not have to be cooled much below 85° to be comfortable for women, instead of the 76° to 80° temperatures the men desire.

Second Serologic Study Considered by U. S. P. H. S.

A second evaluation study of original serologic tests for syphilis is being considered by the U. S. Public Health Service. The first study was completed five years ago.

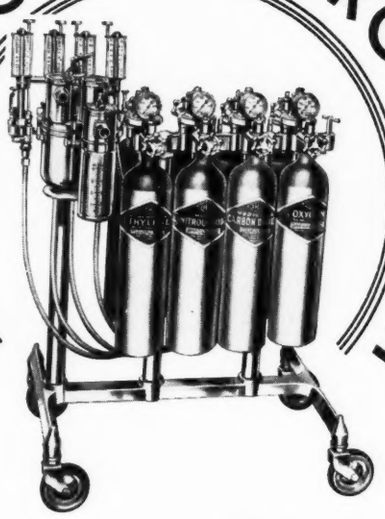
Serologists who have an original serologic test for syphilis or an original modification thereof and who desire to participate should submit their applications not later than October 1, Surgeon General Thomas Parran announces.

Among the 20,000,000 men of draft age in the United States, 324,000 today are infected with syphilis, R. A. Vonderlehr, assistant surgeon general, recently announced.

New Syracuse Plant Proposed

Plans have been drawn for a new General Hospital of Syracuse, Syracuse, N. Y., by T. Walker Gaggin of that city. A complete hospital plant and nurses' home are included in the plans.

EVERY KNOWN IMPROVEMENT



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HEIDBRINK KINET-O-METER

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The HEIDBRINK KINET-O-METER has proved its reputation for SAFETY and DEPENDABILITY. Its accurate trouble-free DRY FLOAT Flow Meter assures positive, easily controlled administration of anesthetics . . . positively eliminates freezing, filling, sediment and cleaning.

Equip YOUR surgery with the HEIDBRINK KINET-O-METER . . . then you'll KNOW that your anesthesia equipment is right, that it assures the ultimate in safety for your patients, both during the operation and post-operatively, assures the surgeons' complete peace of mind and enables them to proceed with confidence.

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Names in the News

Administrators

CECIL C. HURIN of the Methodist Hospital of Southern California, Los Angeles, has been named administrator of Jennie Edmundson Memorial Hospital, Council Bluffs, Iowa, the post vacated by the death of Mrs. Emma Lucas Louie. Not a stranger to Iowa, Mr. Hurin was in charge of Iowa Methodist Hospital, Des Moines, for twelve years, beginning in 1916.

MRS. GLADYS LILGREEN, R.N., has resigned as superintendent of the summer hospital maintained by the Providence Floating Hospital Association for underprivileged children, Providence, R. I. Mrs. Lilgreen, superintendent since 1926, who managed the association's program of rehabilitating needy youngsters at Sunshine Island and, since the hurricane, at the Nayatt Building, announced she was resigning to accept a new position at Providence.

DR. LORIN W. DENNY takes up his duties as head of the Yuba County Hospital, Marysville, Calif., on August 1, replacing Dr. Anthony Fratis.

JESSIE M. SHOOLBRED, R.N., superintendent, Ashland General Hospital, Ashland, Wis., for the last twenty years, has resigned. She will take a rest for about two months before making any further professional connection. At the same time announcement was made of the appointment of DOROTHY TOMKINS to the post as business manager of the hospital, replacing ALEX H. PATON.

DR. LOUIS W. PARRATT has resigned as superintendent and medical director of the Utah Tuberculosis Sanatorium at Ogden.

JAMES H. COOKMAN, hospital relations executive for the Massachusetts Blue Cross, has been named assistant to SUPT. WALTER E. WRIGHT at Memorial Hospital, Pawtucket, R. I.

DR. J. H. STEPHENSON resigned as superintendent of Jefferson Davis Hospital, Houston, Tex., July 1. DR. S. R. HARDY has been named acting superintendent. Ben Taub, chairman of the hospital board of trustees, said that Doctor Stephenson's resignation had been received with regret, as Doctor Stephenson has been in charge of the new hospital since it opened three years ago and has been largely responsible for its efficient management. Doctor Stephenson is not ready to announce his plans for the future.

DR. H. L. GALLOWAY, Anthony, Kan., has been named head of the proposed Jacob Achenbach Memorial Hospital to be constructed at Hardtner, north of Alva, Okla.

PALMA FERRARO, superintendent of the Leonard Hospital, Troy, N. Y., was elected president of the Northeastern New York Hospital Association recently. Miss Ferraro succeeds CLARA SINCLAIR of the Saratoga Hospital, Saratoga Springs, N. Y. Other officers named are: T. T. MURRAY, Memorial Hospital, Albany, vice president, and ROSE Q. STRAIT, Glens Falls Hospital, secretary-treasurer.

H. H. MCGILL recently was reelected superintendent of Columbia Hospital, Columbia, S. C.

DR. ROGER G. OSTERHELD, assistant superintendent, Taunton State Hospital, Taunton, Mass., has been appointed assistant state commissioner of mental health in Massachusetts.

EDITH ATKIN is retiring as superintendent of the Amsterdam City Hospital, Amsterdam, N. Y.

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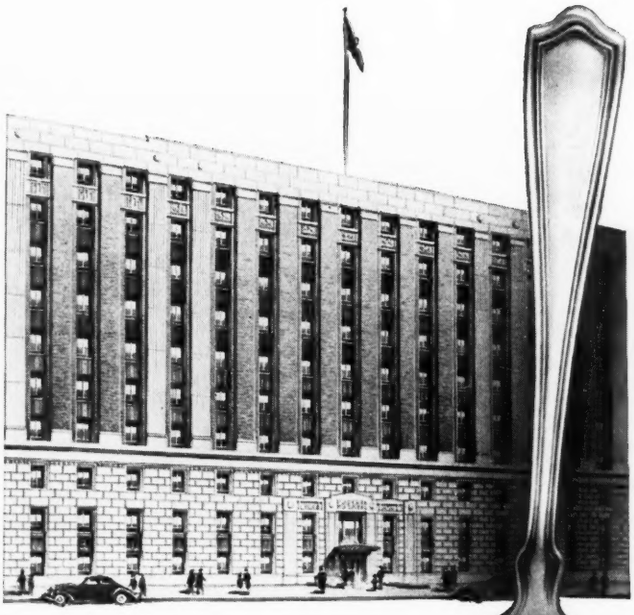

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2. Buds, such as the one shown, may be seen about 15 months after planting.

3. Only pineapples like this — full-grown, sun-ripened, bursting with goodness — are used for Dole Pineapple Juice. That's why this juice is always so temptingly fragrant and delicious.

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Department Heads

MARY C. MULVANY, supervisor of nurses, Providence Health Department, Providence, R. I., will leave that post on September 1 to go to St. John's University, Brooklyn, N. Y., where she will teach a course in public health nursing.

MADELINE M. SCHROEDER, superintendent of nurses at Memorial Hospital, Pawtucket, R. I., and BARBARA H. GROVES, assistant superintendent of nurses, have resigned.

F COLGATE NARBER has been appointed director of building service of New York Hospital, New York City. He succeeds WELDA HARDENBURG, executive housekeeper, as head of the staff of more than 200 employes. Mr. Narber formerly was assistant engineer in charge of construction, alteration and maintenance of the Irving Trust Company Building, 1 Wall Street, and the various branch offices of the firm.

CHARLOTTE PFEIFFER, superintendent of nurses and and principal of the school of nursing, Stuart Circle Hospital, Richmond, Va., has resigned to become a field visitor of the accrediting committee of the National League of Nursing Education. CHARLOTTE JORDAN, Miss Pfeiffer's assistant, has been named acting superintendent of nurses until Miss Pfeiffer's successor is appointed.

U. S. P. Delays Enforcing Surgical Gut Standards

The U. S. Pharmacopoeial standards for surgical gut, as set forth in the second U.S.P. XI supplement, will not become official until January 1. These standards were to become official July 1 but, because of the discovery that considerable stocks of surgical gut conforming to the new standards with respect to diameter, tensile strength and sterility but not labeled in accordance with the new requirements were still in the hands of dealers, the committee made the postponement.

This surgical gut can be used with entire safety, the committee points out, and it was deemed unnecessary to render these stocks unsalable and thus cause large financial loss.

Dispensary to Serve 100,000 Patients

Dedication exercises of the Welfare Island Dispensary, East End Avenue and 80th Street, New York City, took place in late June. The dispensary is under the jurisdiction of the city department of hospitals and was built and equipped with the aid of a P.W.A. grant. It replaces two old dispensaries and is expected to serve 100,000 patients a year. The new building is equipped to render 27 distinct clinical services.

Hartford Plans Large Building

A new Hartford Hospital, Hartford, Conn., will replace the old buildings and will house all essential services and patients. Accommodations are to be provided for 818 patients. Coolidge, Shepley, Bulfinch & Abbott of Boston have drawn the designs for a structure containing 5,000,000 cubic feet. A campaign to raise money for the building is under way.

It's Now Beekman Hospital

Beekman Street Hospital, which serves the downtown area of New York City, will hereafter be known as Beekman Hospital. This change results from a consolidation with Downtown Community House, Inc., and Bowling Green Neighborhood Association, forming a consolidated corporation under the name of Beekman Hospital.

Diagnostic Unit for Danville, Pa.

Construction began July 1 on the new diagnostic building for George F. Geisinger Memorial Hospital, Danville, Pa. The new unit will be ready for occupancy by December. When the building is completed, the total valuation of the hospital property will be in excess of $2,000,000. Stevens, Curtin and Mason of Boston are the architects.

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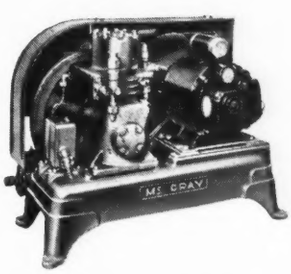

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Trade News

Rubber Floor Covering

• The introduction of a two-tone heavy duty rubber floor covering has been announced by the Goodyear Tire & Rubber Company, Akron, Ohio. The rug is made in rolls, 54 inches wide and 30 feet long, and can be cut to fit any desired area. The overall thickness is 5/16 inch.

Cleaning Device for Stills

• The Barnstead Still and Sterilizer Company of Boston has recently introduced a heating device that facilitates cleaning hard water stills. The new bayonet type of steam heating element can be quickly unscrewed and removed from the evaporator when cleaning is required. It is unnecessary to remove the top or any other part of the still.

Brochure on Catgut

• An attractively presented handbook on "Modern Catgut" has recently been published by the Lewis Manufacturing Company, Walpole, Mass. The material contained in the booklet includes data on catgut manufacture and qualities; basic information on absorption qualities, and a report on chromic catgut.

Lightproof Shade

• A photographically lightproof window shade has recently been marketed by Higgin Products of Newport, Ky. The shade is adaptable to openings of almost any size and is so designed that it is instantly available when needed and out of sight when not in use.

Birds Eye Product Approved

• The seal of acceptance of the council on foods of the American Medical Association has been awarded to the quick-frozen green peas marketed by the Frosted Foods Sales Corporation, New York.

Bracket for Fire Extinguishers

• A new wall bracket support for fire extinguishers has been developed by the Pyrene Manufacturing Company, Newark, N. J. The support prevents the extinguishers from scratching the walls and from being knocked off. A long steel band extending the length of the extinguisher provides suspension at two points.

"DuLuxed" Delicator

• The U. S. Slicing Machine Company, LaPorte, Ind., announces a new white DuLux enamel finish on the Delicator meat tenderizing machine. The Delicator severs sinews and fibers of meat for easier chewing. Many different kinds of meat, such as veal and pork or beef and bacon, can be easily and quickly knit together on this machine, to make combination steaks, according to the manufacturers.

Indestructible Furniture Finish

• Eichenlaubs, manufacturer of wood hospital furniture, has added a new group to its line which has an indestructible finish. At a recent trade show, lighted cigarets were laid on the surface and left no marks. This new finish will be demonstrated at the A.H.A. convention in Boston, September 16 to 20.

Personal Notes

• Arthur J. Cole, vice president of the Toastmaster Division of McGraw Electric Company, Elgin, Ill., died of a heart attack on June 10.

Even Elevators

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HERE is a good example of how hygienic walls and ceilings can be provided for every part of the modern hospital. The walls and ceiling of this elevator are covered with washable Armstrong's Linowall. A simple once-over with mild soapsuds keeps this material fresh and sanitary. It is this characteristic that also makes Linowall ideal for walls in wards, private rooms, corridors, cafeterias, and other hospital areas.

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Reader Opinion

Tuberculosis Controversy

Sirs:

In your February issue, Myers et al. published a paper entitled "Minneapolis Proves Its Case." On page 64 the authors state:

"Certainly the uninfected who are sent to a sanatorium for observation and become infected with tubercle bacilli while they are there have a justifiable complaint against the institution. A good example is that of a girl of 15 years, who was admitted to the Minneapolis General Hospital on Nov. 28, 1933, because of a pulmonary hemorrhage. There was no tuberculosis service in the hospital at that time and, even though her sputum contained no tubercle bacilli and she did not react to tuberculin, she was sent to a sanatorium. *The process responsible for the hemorrhage proved to be nontuberculous.* (the italics are mine.)

"The girl's mother was fearful of having her daughter in a sanatorium and requested that she be kept isolated from other patients. This was done for a time, but after about six months in the institution *she was transferred to a ward where she was in contact with advanced cases of tuberculosis with tubercle bacilli in their sputum.* In August 1934, she was found to be a strong reactor to tuberculin. Her mother immediately demanded that she be removed from the institution and since that time we have had considerable difficulty in convincing the mother that she should not bring legal action against the institution or the physicians individually, whom she considers responsible for permitting her daughter to become infected." (italics are mine.)

I agree with the general premise cited above but I do not believe that the case cited by the authors has any bearing on the premise.

Apparently, the foregoing refers to H. M., No. 5411, a 15 year old girl who was admitted to the Minneapolis General Hospital on Nov. 28, 1933, because of an acute pulmonary hemorrhage. Because a diagnosis of pulmonary tuberculosis was made from history and x-ray examination she was transferred to the Glen Lake Service at Fairview Hospital on Dec. 8, 1933, and to Glen Lake Sanatorium on Jan. 3, 1934. While at Fairview Hospital she was under the care of Dr. Alexander Josewich of our outpatient staff, who, under date of Jan. 2, 1934, sent us a report of his diagnosis, a few excerpts of which follow.

Similarity of Cases

"The case is obviously a clear one of pulmonary tuberculosis despite the negative Mantoux and the negative sputum at the General Hospital. . . . We must bear in mind that quite a number of persons reacting negatively will be found to have pulmonary tuberculosis. . . . This type of lesion present in H. M. indicates long standing disease.

"This case is similar to one I have under my care at this time, namely, a physician from Bemidji, who came to me with a negative Mantoux test that had been done by one who is skilled in its application and interpretation. He had extensive tuberculosis with cavity formation and positive sputum. . . "

According to the sanatorium record the mother reported that following the birth of her second child (about 1920) she did not feel well and so consulted a physician who told her that she had "childhood" tuberculosis. As H. M. was about a year old then, it is possible that she was infected by her mother at that time even though the mother recovered completely. I wonder about the report of childhood tuberculosis in 1920. I am inclined to believe that the mother was told that she had a "touch" or a "spot" of tuberculosis which, because she has had no further trouble, she has later interpreted to mean "childhood tuberculosis."

The patient's history is interesting especially in view of the statement by the authors that the "process responsible for the hemorrhage was found to be nontuberculous." The patient did not feel well in the spring of 1932 and because of her mother's own experience when the patient was about a year old, the mother was suspicious of tuberculosis and so in March 1932, H. M. was taken to a clinic, supervised by two of the authors. There a tuberculin test was done which was considered negative and so, according to the patient, no x-ray was taken and no further investigations for tuberculosis were made, even though during this year H. M. had had several attacks of unexplained fever and extreme fatigue. In fact, at times she was so tired she would have to lie down for a while after school.

Also, we were told that early in November 1933, the patient developed a cold associated with severe cough and chest pains which at times were so sharp that she had to hold her breath. Finally, on Nov. 28, 1933, she had a pulmonary hemorrhage of about a cupful of bright blood and was then admitted to the Minneapolis General Hospital, where a diagnosis of pulmonary tuberculosis with cavitation in the left upper lobe was made. Because Glen Lake Sanatorium was filled, she was transferred to the Glen Lake Service at Fairview Hospital where a diagnosis of tuberculosis was also made by the

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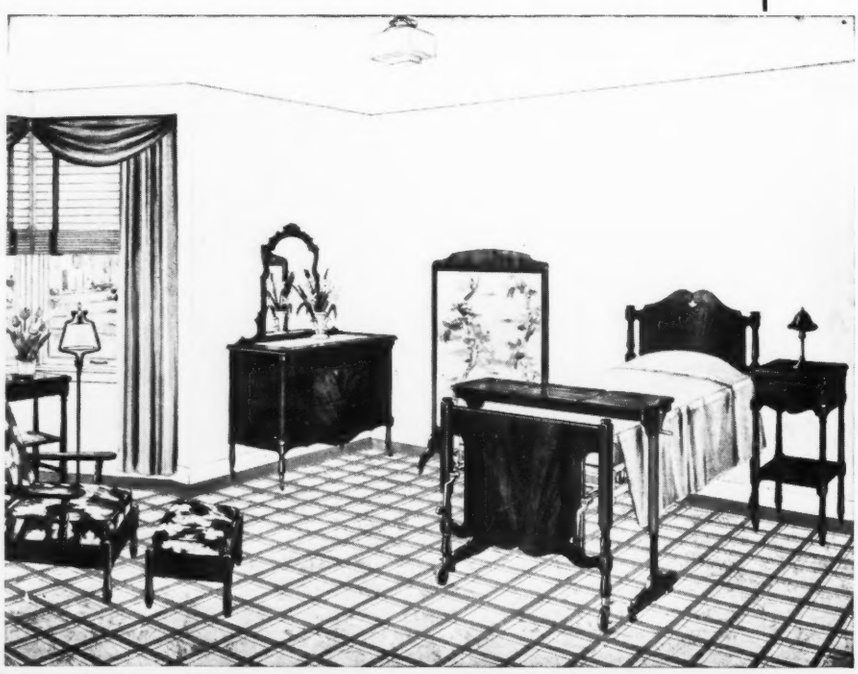

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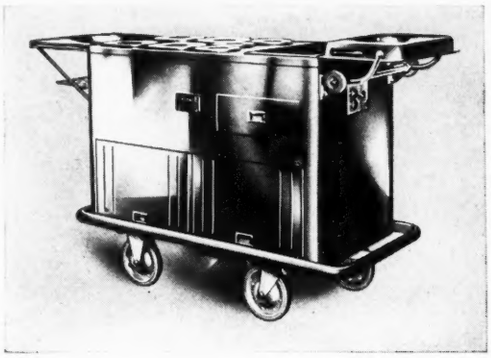

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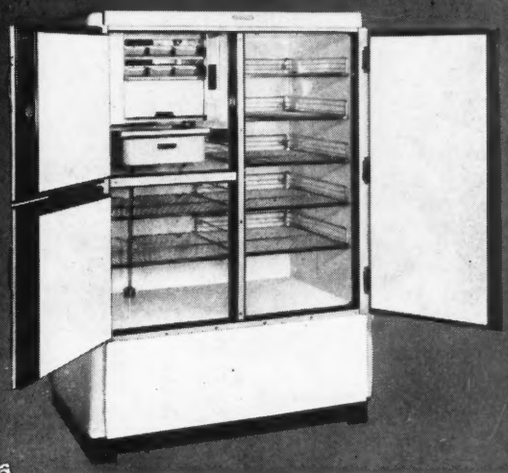

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staff and roentgenologist. Upon her transfer to Glen Lake about a month later, tuberculosis was again diagnosed in spite of negative sputum and negative tuberculin test. Our roentgenologist compared the films taken at Fairview with those taken here and stated that in the films taken at Fairview Hospital there was an infiltration with evidence of cavitation in the left upper lobe to the level of the second rib anteriorly which showed quite a marked resolution in the films taken here. The patient showed further resolution during her stay. Her tuberculin test was negative until the fifth test which was given on Aug. 29, 1934, when it was interpreted as positive.

On Oct. 5, 1934, H. M. left the institution for an hour's leave and did not return.

Her condition upon discharge was considered quiescent and, because of the interest surrounding the tuberculin reaction and the problem it might bring up later, the physician in charge of her case made the following notation on his discharge report:

"This girl had a negative tuberculin when she came to the sanatorium and it remained negative until August of this year (1934). She was never in a room with anyone who had tubercle bacilli in the sputum. Most of her time was spent in a room with H. H., who is a very questionable case of tuberculosis and was without sputum."

The authors of your article state that the "process responsible for the hemorrhage was proved to be nontuberculous." Apparently, there is a difference of opinion about that because a diagnosis of pulmonary tuberculosis was made at the Minneapolis General Hospital. This was corroborated by Dr. A. Josewich and the roentgenologist at Fairview Hospital and the clinician and the roentgenologist at Glen Lake Sanatorium, where she was classified as a moderately advanced case of pulmonary tuberculosis and upon discharge she was classified as quiescent. Thus we have a diagnosis of tuberculosis by three different groups of physicians and, under date of Jan. 30, 1934, the attending physician at Glen Lake Sanatorium wrote Dr. J. A. Myers in part, as follows: "We also feel that she is a case of tuberculosis despite this negative tuberculin reaction. The history of hemorrhage, typical x-ray findings—infiltration in the center of which is a cavity—are the facts upon which we base this diagnosis. There is nothing in her history that would suggest a diagnosis of bronchiectasis or lung abscess."

Ask for Proof

As no data are given to substantiate the statement by the authors, only one of whom is a clinician, that the "process responsible for the hemorrhage was proved to be nontuberculous," we believe we have a right to ask them for their proof. Perhaps the proof lies in the negative tuberculin reaction. But one of the authors, Myers, in other articles has called our attention to the fact a tuberculin test has at least a 5 per cent error. Therefore, until further evidence is given to substantiate the diagnosis of nontuberculous condition, I see no reason why the opinion of the three groups of clinicians and roentgenologists should be rejected in favor of a flat, unsupported statement of the authors, one of whom is a clinician, the second, a health officer and the third, a first year medical student.

According to the social record, the mother "was afraid that as H. M. was an incipient case of tuberculosis she might get more tuberculosis if she remained here [at the sanatorium]." The viewpoint of the mother is unusual. It becomes understandable, as do many things in the article, when we realize that the child's medical adviser outside of the sanatorium was one of the authors of the article under discussion. It is not every physician who in public address elsewhere and in articles written for medical journals can give the impression that he advises sanatorium treatment—the earlier the better—but who can apparently so advise his patients that they conclude that the early or incipient case should remain at home under his care.

The authors further state, "she was transferred to a ward where she was in contact with advanced cases of tuberculosis with tubercle bacilli in their sputum." That statement merits discussion from at least two points of view: (1) if she was an active case of tuberculosis with cavitation, as diagnosed by the three different groups of physicians, what would have been the harm if she had been put in a room with other cavity cases who might have tubercle bacilli in their sputum, (2) but, according to the attending physician at the sanatorium, none of her roommates had positive sputum.

Certainly the sanatorium record should be of more value than dogmatic statements by individuals who, theoretically, had no contact with the patient while in the sanatorium. Therefore, it seems to me that the authors should explain the facts upon which they based their statements or admit their mistake.

E. S. Mariette, M.D.,
Superintendent.

Glen Lake Sanatorium,
Oak Terrace, Minn.

Reply by Doctor Myers

H. M., to whom Dr. Mariette refers, first came to the Lymanhurst out-patient department on March 8, 1932. There were only the mother and one brother living in the home with her. There was no history of exposure, although her mother stated that at one time she had been suspected of having tuberculosis but subsequent examinations did not confirm the suspicion. Approximately four years before, this girl's tonsils were removed, after which she complained of bronchitis. Her temperature, weight and vital lung capacity were normal. She did not react to

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tuberculin. On May 29, 1933, the tuberculin test was again administered but she did not react. We did not make an x-ray film inspection of her chest, as previous experience had taught us that the tuberculin test fails with great rarity in this age period.

Immediately following her admission to the Minneapolis General Hospital on Nov. 28, 1933, we were notified and have since kept in close touch with her condition. She entered the hospital because of a pulmonary hemorrhage and the x-ray film, which we promptly inspected, revealed definite evidence of disease in the left lung at the level of the second rib, anteriorly. Within the density was a somewhat rarified area which might have been due to cavitation or to resolution of a part of the involved area. Of great importance to us was the fact that only a few weeks before she had had "a severe cold," with intense pain over the left side of her chest which interfered with respiration. A violent cough also accompanied this "cold." Indeed, the history was most suggestive of pneumonia and the hemorrhage and x-ray shadow were in keeping with unresolved pneumonia or postpneumonic abscess.

No Tuberculin Reaction

When this girl was transferred from the Minneapolis General Hospital to the Fairview Hospital, we continued our inquiries but still she did not react to tuberculin and tubercle bacilli could not be found in her sputum. Tuberculosis is a specific disease; therefore, we were unable to make a diagnosis of this disease in the absence of both the tuberculin reaction and demonstrable tubercle bacilli. We had long since abandoned the custom of labeling everyone tuberculous who had an x-ray shadow or a pulmonary hemorrhage or both.

Soon after she was transferred to the Glen Lake Sanatorium, I wrote (Jan. 25, 1934) the superintendent concerning his findings. In a most courteous reply, one of the physicians invited me to see her in consultation. This met with the approval of the mother and on Feb. 21, 1934, we examined her record, inspected the x-ray films and discussed the diagnosis. He was of the opinion that she had tuberculosis. However, because of continued absence of a tuberculin reaction and no tubercle bacilli having been found in the sputum, in my opinion there was insufficient evidence for such a diagnosis.

It seemed significant that a marked decrease in the size of the area of disease had occurred in the brief time since she was admitted to the Minneapolis General Hospital The sanatorium physician inquired as to whether in our opinion, this girl should be kept in the sanatorium. I replied that if she could remain in the single room and avoid contact with all clinical cases of tuberculosis, there should be no harm in continuing to observe her there.

On Jan. 2, 1934, the 15 year old brother failed to react to tuberculin. His test has since been repeated several times but no reaction has occurred. Because of the suspicion that had been cast about this family, we have made x-ray films of the brother's chest on four occasions but no evidence of disease has been found at any time. Even the mother did not react to tuberculin on May 16, 1934, and x-ray film examination revealed no evidence of disease. She was again found to be a nonreactor on August 15, 1935. Thus, in our opinion none of the members of this family was infected with tubercle bacilli.

On Oct. 23, 1934, this girl accompanied by her mother reported for reexamination. The girl stated that during the first part of her stay in the sanatorium she was in a single room and then for a while she was associated with only negative sputum patients. However, after a few months she said she was placed in a ward with five other patients, some of whom had advanced disease and told her they had tubercle bacilli in their sputum. The mother concurred in this statement. Approximately two months later, while still in the sanatorium, she reacted violently to tuberculin. This was the first time she had ever reacted. The mother then became alarmed and removed her from the sanatorium.

The examination on Oct. 23, 1934, revealed almost complete disappearance of the shadow previously seen in her left lung. Our diagnosis was pulmonary abscess, apparently healed. There was still no evidence of clinical tuberculosis. Since that time we have made 20 examinations, always including x-ray film inspection, of this girl's chest and at no time has there been any evidence of significant disease. The last film, made on June 26, 1940, is practically clear.

Could Not Make Diagnosis

Therefore, we have not been able to make a diagnosis of tuberculosis in the case of H. M. for the following reasons: (1) there was no history of exposure to tuberculosis; (2) no member of the family, including the girl, herself, reacted to tuberculin; (3) the onset of her condition three weeks before was that of an acute disease, most likely pneumonia; (4) hemorrhage and x-ray shadows are not diagnostic of tuberculosis; (5) tubercle bacilli could not be recovered from her sputum even though a cavity was said to be present in her left lung; (6) the lesion casting the shadow promptly subsided, as almost never occurs in pulmonary tuberculosis but is a frequent occurrence in small pulmonary abscesses, and (7) she became a definite reactor to tuberculin after having been in an institution for the tuberculous approximately nine months.

J. A. Myers, M.D.

(The second section of the controversy will appear in the September issue of The Modern Hospital.—Ed.*)*

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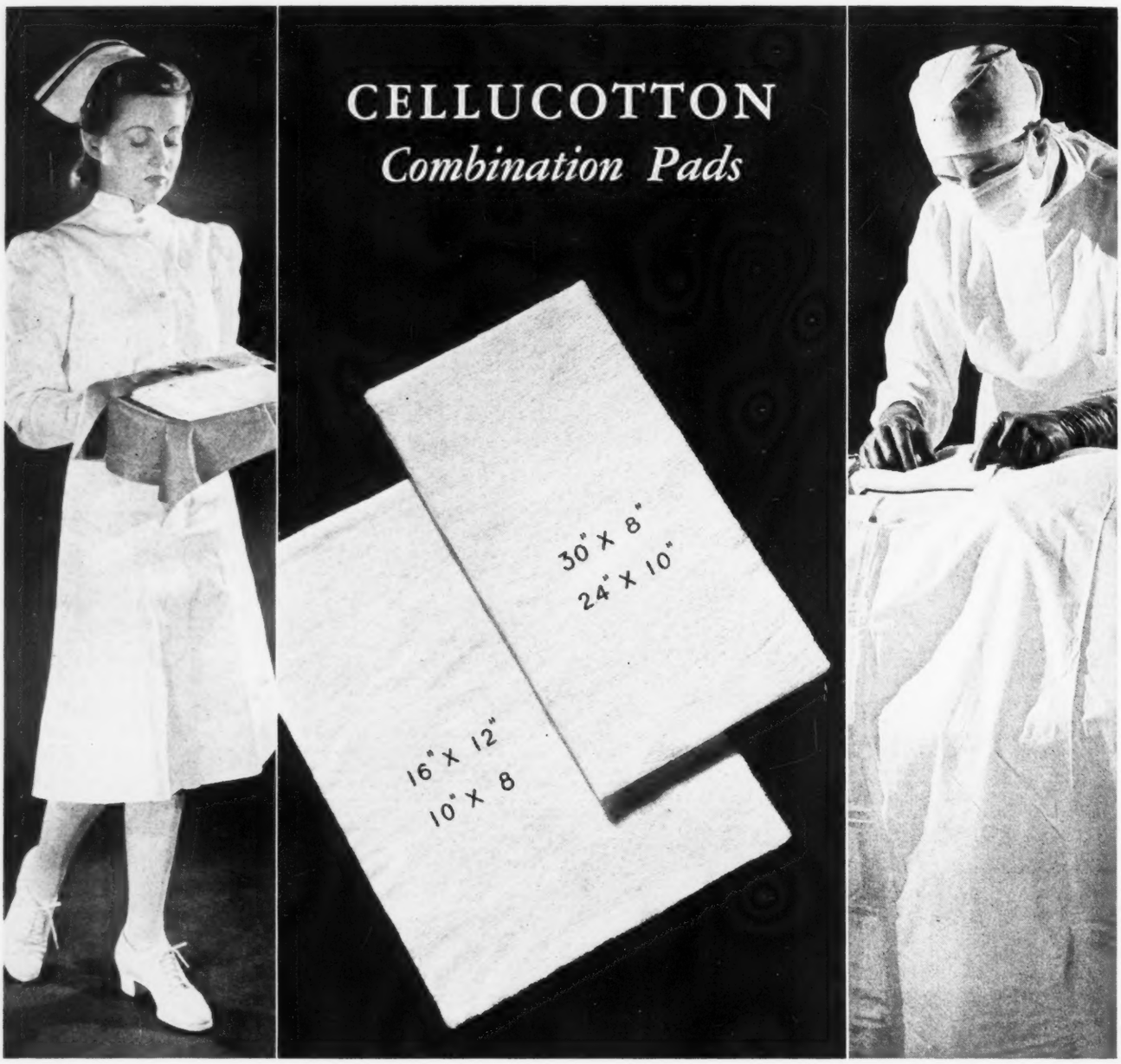

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